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ECONOMIC DEVELOPMENT PROGRAMME

FOR THE

REPUBLIC OF SOUTH AFRICA

1968 - 1973

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PREFACE

As is customary, an attempt has been made in this Economic Development Programme to determine the growth potential of the South African economy over the medium term. While we have gone through a period of feverish progress, it is trusted that the present E.D.P. will be received and studied in a somewhat calmer business climate than was possible in respect of its predecessors. In these circumstances it is possible to make a well-balanced evaluation of South Africa's future possibilities, on which a sound process of economic growth can be based. The calculations in the Programme are indeed designed to serve as guide lines to the formulation of long-term policy in the public as well as the private sectors.

This Economic Development Programme, like its predecessors, is a joint project of the public and private sectors, and I would like to use this opportunity to express my thanks to all institutions and individuals, in particular the sectoral advisory committees, who cooperated in its compilation.

C. DE WET
MINISTER OF PLANNING

PRETORIA.

December 1968.

PREFACE

Since the publication of the first Economic Development Programme in 1964, it has been the practice to compile a Programme for South Africa periodically (at present biennially). The present E.D.P., for 1968-1973, is the fourth in this series of publications. To a large extent, the Programme follows the same pattern as the preceding ones. The economy has advanced more rapidly since 1963 than the target growth rate set in the previous E.D.P.'s. An important reason for this was that we have received a large inflow of foreign capital in recent years, while the object of the E.D.P. was to determine our maximum growth potential on the basis of our <u>own</u> resources. Apart from this, the Republic has also attracted 50 per cent more immigrants annually during the relevant period than was assumed in the previous E.D.P.'s. These additions to our resources enabled us to attain a higher growth rate, and will make possible a higher growth rate in future years as well. It was necessary therefore to explore anew the growth potential of the economy. As will appear, it was found that the addition of the said productive factors, as of others, did indeed create a higher growth potential.

Whereas the present publication attempts to indicate what the economy can, and cannot, attain it is hoped that the Programme will serve as an aid to all who must make decisions on the future development of South Africa - an aid that will enable them to enhance the welfare of all South Africans within the framework of our existing economic-political system.

The previous Programmes were received particularly favourably, and have proved to be of much use. It is trusted that this Programme will enjoy the same favourable reception.

P.J. RIEKERT
ECONOMIC ADVISER TO THE
PRIME MINISTER

PRETORIA.

December 1968.

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SUMMARY

The present Economic Development Programme (E.D.P.), with 1967 as base year and covering the period 1968-1973, is the fourth programme compiled for South Africa, and follows on the E.D.P. for 1966-1971, which appeared in 1967.

1. The realised economic developments as compared with the projected developments

On the basis of the first E.D.P., which appeared in 1964, the Government accepted a growth rate of 5½ per cent per annum in the real Gross Domestic Product (G.D.P.) as a target growth rate for the period 1963-1969. During the first 4 years of this period the economy has consistently developed at a higher level than that set by the target growth rate. The average growth rate in the real G.D.P. was 6.4 per cent per annum for this period. For various reasons the growth potential of the economy exceeded the target growth rate during this period, with the result that it was found necessary to investigate anew the growth potential for the new programming period 1968-1973 by analysing the implications of three alternative growth rates in the real G.D.P., namely growth rates of 5, 5½ and 6 per cent per annum respectively.

In so far as the developments on the expenditure side are concerned, 1966 and 1967 were characterised by a high expenditure level as compared with the projections in the previous E.D.P. Although private consumption expenditure exceeded the E.D.P. projections in both years, this item was not excessively high taking into account the higher incomes realised. The over-expenditure in the economy was due, firstly, to the huge investments in inventories in 1967, and secondly, to the high level of fixed capital formation, which was made possible partly by the inflow of foreign capital.

Owing to the high level of domestic expenditure, realised imports of goods and services exceeded the projected levels in both years. The poor agricultural crops were responsible for exports being lower than the projected level in 1966, but in 1967 exports exceeded the level set in the E.D.P. (See Chapter I).

2. Findings for the programming period 1968-1973

(a) Growth of the net national income

The conclusion has been reached that the net national income will increase at a somewhat slower rate than the growth of the G.D.P. over the programming period. At an annual growth rate of 5 per cent in the real G.D.P. the growth in the net national income is set at 4.7 per cent per annum. For the growth rates of 5½ and 6 per cent in the real G.D.P., the increase in the net national income amounts to 5.2 and 5.7 per cent per annum respectively. A growth rate of about 5 per cent in the real G.D.P. over the programming period will increase the per capita income at about the same rate as was achieved over the previous 10 years, namely 2.1 per cent per annum. (Chapter II, Section 1).

(b) Private consumption expenditure

During the programming period private consumption expenditure will increase by 4.6, 5.1 and 5.5 per cent per annum for the 5, 5½ and 6 per cent growth alternatives respectively. The levels projected in the E.D.P. can be regarded as normal levels around which actual private consumption will tend to fluctuate (given the present tax structure). (Chapter II, Section 2(a)).

(c) Current expenditure by general government

If the real G.D.P. expands by 5 per cent per annum, the increase in the current expenditure of the general government amounts to 5.7 per cent, which compares with a growth of 4.7 per cent in the net national income. Since the expenditure of the government does not necessarily increase in direct proportion to changes in economic activity, only small increases above the expenditure level corresponding to the 5 per cent growth alternative were allowed for the other two growth rates. (Chapter II, Section 2(b)).

(d) Net fixed capital formation

The net fixed capital formation required for the attainment of growth rates of 5, 5½ and 6 per cent in the real G.D.P. is set for 1973 at 16.2, 27.5 and 38.9 per cent above the 1967 level. Owing to the rapidly increasing allowance for depreciation the growth rate of gross fixed investment exceeds that of net fixed investment. Gross fixed investment increases by 5.0, 6.1 and 7.2 per cent per annum for the 5, 5½ and 6 per cent growth alternative respectively. (Chapter II, Section 2(c)).

(e) Investment in inventories

The normal expansion in inventories is set at R150 million to R180 million per annum for the 5 per cent growth rate. If the G.D.P. should increase by 5½ per cent per annum, it is estimated that inventories would normally increase by amounts ranging between R150 million and R220 million, and for the 6 per cent growth alternative the corresponding figures are R180 million and R230 million. (Chapter II, Section 2(a)).

(f) The balance of payments on current account

If the economy should grow by 5 per cent per annum and if the income and expenditure items should follow the course described above, the expenditure will be substantially less than the income. On the assumption that the surplus output is exportable, the current account of the balance of payments will show substantial surpluses at the 5 per cent growth alternative. Owing to the high level of imports in the base year the 1973 imports are set only 7.2 per cent above the 1967 level, but they are 26.5 per cent above the imports in 1966. The increase in exports over the programming period that are required to meet the import requirements amounts to 29.5 per cent, but if the large surpluses on the current account projected for this growth rate are also to be realised, exports will have to increase by 43 per cent above the 1967 level.

For the 5½ per cent growth rate in the real G.D.P. income and expenditure are more or less in equilibrium, and the balance of payments on current account shows small surpluses. Imports in 1973 are estimated at 11 per cent above the level in the base year, but they exceed the 1966 imports by 31 per cent. The 1973 export level for this growth alternative is estimated at 41 per cent above the figure of the base year.

In the case of the 6 per cent growth alternative domestic expenditure exceeds the available income with the result that the balance of payments on current account will show deficits during the programming period. (Chapter II).

(g) The monetary situation

Judged by the expected changes in the gold and foreign exchange reserves as a result of developments on the current account of the balance of payments, and taking into account the monetary situation in the base year, the monetary situation will, in the case of the 5 per cent growth rate, tend to have an expansionary rather than a restrictive effect on the process of economic growth unless appropriate measures are applied to reduce the surplus liquidity. For the 5½ per cent growth rate the normal increase in the money and near-money supply arising from the surpluses on the current account of the balance of payments, will not be sufficient to meet the increasing liquidity demands of the economy once the surplus liquidity present in the economy during the base year has been siphoned off. Where a legitimate need for credit arises, without the danger of inflation or of causing a deficit on the current account of the balance of payments, it may be accepted that the monetary authorities will supply the necessary credit, in which case there should be no shortage of liquidity which could act as a limiting factor to the attainment of a growth rate of 5½ per cent. The probable monetary developments at the 6 per cent growth rate are to a large extent similar to those discussed for the 5½ per cent growth alternative. In this case, however, the balance of payments shows deficits of about R100 million for the initial years of the programming period. As soon as the surplus liquidity in the economy has been eliminated, the monetary factor will hamper the process of economic growth unless the monetary authorities are prepared to ease the liquidity position of the financial institutions. (Chapter V).

(h) The manpower situation

The demand for labour will increase at a slower rate than its supply at a growth rate of 5 per cent in the real G.D.P. so that unemployment among the non-Whites will increase at this growth alternative. In the case of the Whites, the demand will increase at about the same rate as the supply, assuming a net immigration level of 20,000 persons per annum. If South Africa should gain 30,000 immigrants net per annum, the supply of White labour will also exceed the demand at a growth rate of 5 per cent per annum.

At an annual growth rate of 5½ per cent, the demand for both White and non-White labour increases more rapidly than the supply of labour. For the Whites, the demand exceeds the supply by 28,000 persons by 1973 if the net immigration level is set at 20,000 persons, and by 3,000 persons if the net immigration level is set at 30,000 persons per annum. If the special attention given to the training of manpower in the Republic is continued, and if a net immigration

level of 30,000 persons can be maintained, it appears that a growth rate of 5½ per cent per annum in the real G.D.P. can be achieved between 1967 and 1973.

The analysis of the labour market indicates that South Africa does not have the potential to maintain a growth rate of 6 per cent over the medium term. If 20,000 immigrants (net) per annum should come to South Africa, the demand for White workers will, by 1973, exceed the supply by 64,000 persons. This shortage will amount to 40,000 persons if a net immigration level of 30,000 persons per annum could be maintained. The growth in the demand for non-White labour will exceed the growth in its supply by 100,000 persons for this growth rate. (Chapter IV).

(i) Sectoral developments

The process of economic growth is characterised by differentiated growth rates in the various industries and sectors. Of the four principal industries distinguished, secondary industry must maintain the highest growth rates, growing by 5.9, 6.8 and 7.8 per cent per annum for the 5, 5½ and 6 per cent growth alternatives respectively. As regards the sectoral developments twenty of the 33 sectors increase at a higher rate than that of the economy as a whole. For the 5½ per cent growth alternative, for example, there are 7 sectors that expand at rates higher than 7.5 per cent per annum. These rapidly expanding sectors are basic chemicals (no. 17), miscellaneous chemicals (No. 18), basic steel products (No. 20), basic non-ferrous metals (No. 21), machinery (No. 23), electrical machinery (No. 24) and motor vehicles (No. 26). (Chapter VII).

(j) Conclusions

On the strength of the analysis the conclusion can be drawn that the South African economy has the potential to grow at a rate higher than 5 per cent per annum. At a net immigration level of 30,000 persons per annum a growth rate of 5½ per cent in the real G.D.P., with 1967 as base year, will be attainable with the available production factors. For the maintenance of a growth rate of 6 per cent per annum over the six-year period 1967-1973 South Africa would have to depend on an inflow of foreign capital, and substantially more than 30,000 immigrants would be needed.

CHAPTER I

INTRODUCTION

1. The present Economic Development Programme, covering the period 1968-1973 with 1967 as base year, is the fourth programme prepared for South Africa. Initially it was decided that the E.D.P. would be revised annually, and since the publication of the first E.D.P., for the period 1964-1969, two revisions have appeared - one in 1965 and the other in 1966.[1)] In the last Programme the possibility was mentioned that in future the E.D.P. might be published biennially. At the beginning of 1967 discussions were held with representatives of employers' organisations and various interested persons in order to determine whether the present system of economic development programming served its purpose, and what improvements could be introduced in the E.D.P. A report on these discussions was submitted to the Economic Advisory Council and on their recommendation the Government decided to retain the E.D.P. in its present form but to publish it biennially in future and to maintain contact with the private sector on an annual basis by means of the Sectoral Advisory Committees. During the intermediate years follow-up meetings will be held with the private sector in order to discuss the deviations of the realised developments from the E.D.P. projections for the various sectors. These discussions were of great use in compiling the present E.D.P.

2. The framework of the present E.D.P. is largely the same as that of the previous' E.D.P.'s. Following this introductory chapter is a discussion on the magnitude and utilisation of the Gross Domestic Product with the purpose of ascertaining the maximum growth rate that can be attained with the available savings. Chapter III deals with the developments in foreign trade and the balance of payments in order to determine the growth potential from the balance of payments point of view. The supply of and the demand for labour are dealt with in Chapter IV, and in Chapter V the financial and monetary aspects of the E.D.P. are investigated. The growth potential of the economy is determined on the basis of these analyses. The next two chapters deal with the development of the main branches of production (Chapter VI) and the individual sectors (Chapter VII). In conclusion the results are presented in Chapter VIII.

3. Before the estimates for the new 1968-1973 programming period are presented in the following chapters, it is necessary to compare the realised growth pattern with the projections of the previous Programmes in order to determine whether the E.D.P. projections should be revised in the light of the realised development. These aspects are dealt with in the remainder of this chapter.

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1) Department of Planning, Economic Development Programme for the Republic of South Africa, 1964-1969, 1965-1970 and 1966-1971, Government Printer.

1. The realised development and a comparison of this with the E.D.P. projections

4. Firstly, the realised growth rate of the gross domestic product (G.D.P.) since 1963, the base year of the first E.D.P., will be discussed. Secondly, the realised domestic product and the various expenditure items in 1966 will be compared with the 1966-1971 E.D.P. projections.[1] The development of production and employment in the four main industris viz., agriculture, mining, secondary industry and the services industry are also analysed against the background of the E.D.P. projections.

5. To make these comparisons it is necessary to reduce the E.D.P. projections and the actual developments to a comparable basis. All the projections in the E.D.P. are made on the basis of the prices ruling in the base year, in this case 1965, whereas the realised developments are measured at current prices. For this purpose it was necessary to convert the E.D.P. figures with the aid of suitable indices to the prices of 1966 and 1967 respectively.

(a) The growth rate of the economy

6. On the basis of the first Economic Development Programme the Government, as is generally known, decided on a target growth rate of 5½ per cent in the real gross domestic product for the period 1963 to 1969. In the Programmes for 1965-1970 and 1966-1971 respectively this target rate of growth was adjusted to the realised growth as revealed by the national accounts at that time. Basically, the 5½ per cent target growth rate was retained in the respective Programmes as a reasonable indication of the growth potential of the South African economy. It was not expected that the economy would develop at a uniform rate over the programming period, and in the first E.D.P. already it was clearly stated that annual fluctuations around the target growth rate would be no cause for concern as long as the target growth rate could be approximated for the programming period as a whole. The actual growth tempo for the first four years of the first programming period is now known, and it appear that the economy consistently developed at a higher level than that set by the target growth rate. In spite of the decrease in agricultural output in 1964 the real G.D.P. increased by 7.6 per cent during that year. The growth rate of 5.3 per cent in the real G.D.P. in the following year, 1965, was somewhat lower than the target rate of 5½ per cent, but owing to the high rate of growth in the previous year, the level of activity was still higher than that indicated by the target rate of growth, as can be seen in Figure 1.1. During these years the growth rate was influenced by the poor agricultural crops resulting from the unfavourable weather conditions. Had it not been for this factor the growth rate would have been still higher in the first two years of the 1964-1969 programming period. The agricultural conditions improved during the next two years and in 1967 crops were above normal. (These aspects are further analysed in Section 1(c).) The growth rate in the real G.D.P. was 5.9 per cent and 6.8 per cent for 1966 and 1967 respectively. Figure 1.1 indicates the course of the real G.D.P. (expressed at 1958 prices) for the 1960-1967 period.

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1) A comparison of the E.D.P. projections with developments in 1965 appeared in the Economic Development Programme for 1966-1971.

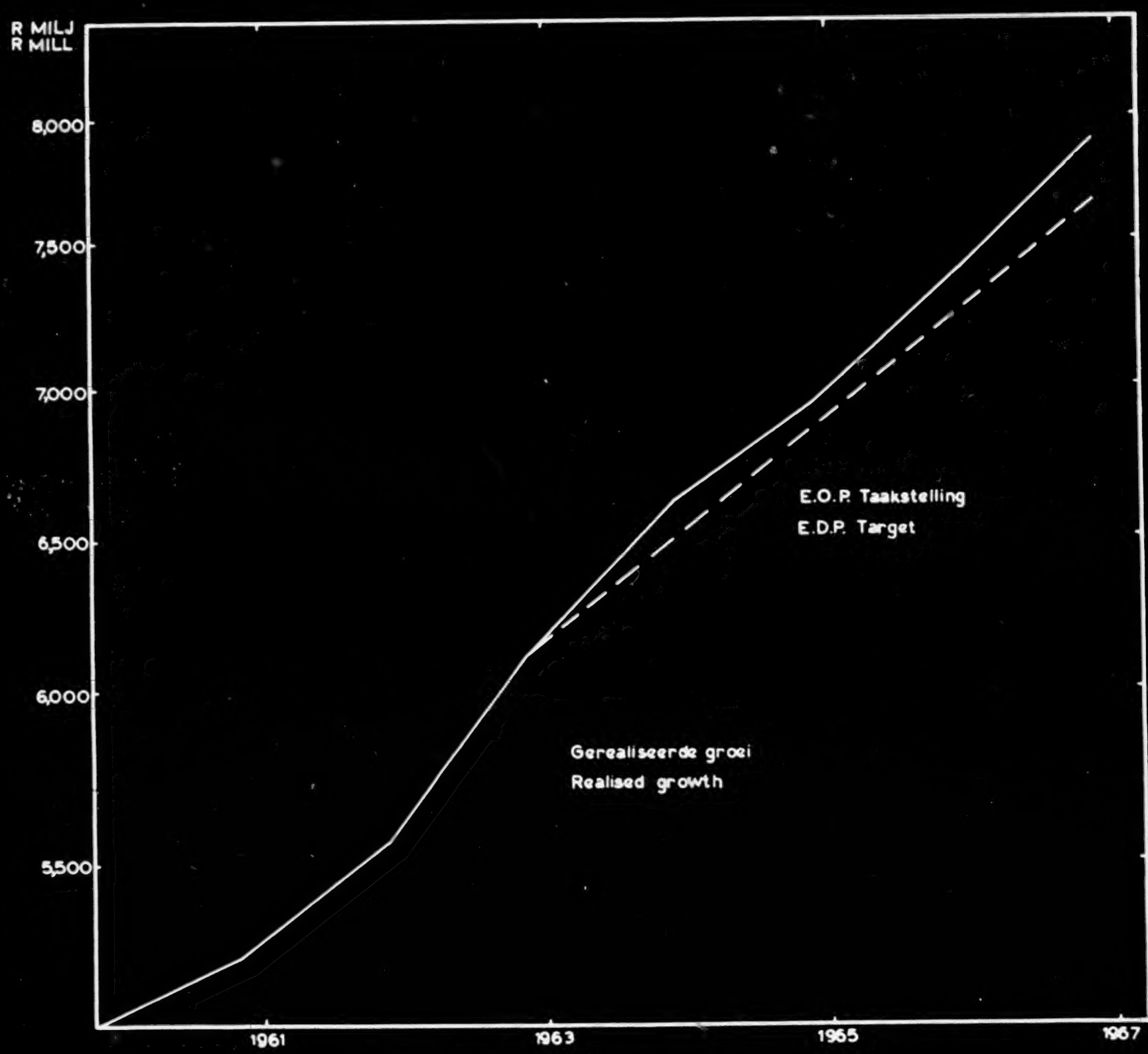

Fig. 1.1: The real G.D.P., 1960-1967.

7. The average annual growth rate in the G.D.P. for the period 1963-1967 was 6.4 per cent as compared with the target rate of 5½ per cent for this period. It appears from Figure 1.1 that the realised G.D.P. since 1964 was higher than it would have been if the economy had expanded at the target rate of growth.

8. It might be interesting to discuss briefly the factors responsible for the higher growth rates actually realised. It was pointed out in the various Programmes that the availability

of labour, especially skilled labour, would be the bottleneck if the economy were to expand even at a rate of 5½ per cent. This was based on the assumption of South Africa gaining 20,000 immigrants annually on a net basis. The actual level of immigration since 1963 was considerably higher, to wit a net average of 32,000 immigrants per year. Thus the net immigration figure on which the calculations of the E.D.P. were based, was exceeded by 48,000 over the four years. In the E.D.P. it was concluded that at the assumed immigration level a shortage of skilled labour would be experienced, and a separate calculation indicated that about 30,000 immigrants per annum were needed to maintain the target growth rate. The actual number of immigrants over the last four years were even higher than this figure. This high level of immigration was an important factor contributing to the higher growth rate. The availability of more Whites also led to the employment of more non-Whites than provided for in the E.D.P. Furthermore a capital inflow from abroad was experienced during this period and therefore made more funds available for development than was anticipated in the E.D.P., where it was assumed that no capital inflow or outflow from or to the foreign sector would take place over the programming period. The reinforcement of the factors of production on both the labour and the capital markets increased the growth potential of the economy as compared with the target rate of growth for the period 1964-1967. Against this it must be borne in mind, however, that the average growth rate of 6.4 per cent over the period was accompanied by a higher rate of inflation than that assumed in the E.D.P. As a result of the strong expansionary forces, such as a high consumer demand, excess liquidity and business optimism, present in the economy during this period, it was difficult to contain the rate of expansion within the limits set by the previous E.D.P.'s, taking into consideration the additional manpower and capital that became available. The result was that prices increased markedly and that it became necessary to limit the growth to a lower rate which would be more in accordance with the availability of the factors of production.

9. The implications of this high growth rate for the target growth rate of the present E.D.P. will be dealt with in Section 2 of this chapter. It is necessary first to analyse the realised developments of the income and expenditure items in order to determine whether they too contain implications for the present E.D.P.

(b) The domestic product and expenditure in 1966 and 1967

10. Two years viz., 1966 and 1967, have elapsed since the publication of the last E.D.P., and in this section the realised development in these years is compared with the projections in the 1966-1967 E.D.P. If it is assumed that the E.D.P. projections for the expenditure and other items are estimates of the medium term trends associated with the achievement of the growth potential of the economy, the comparison of the realised with the projected figures can indicate the extent to which the realised development deviate from the normal level as reflected by the E.D.P. projections. In this manner the E.D.P. projections are used to evaluate the economic conditions. This analysis is particularly important for 1967, the base year for the new E.D.P., since the economic position in the base year may influence the projections for the new programming period.

11. Table 1.1 contains the figures showing the realised values of national income and expenditure items as well as the adjusted E.D.P. figures. As a result of the rapid growth in the G.D.P., its realised value exceeded the E.D.P. projections for 1966 and 1967 by R31 million and R158 million respectively. The deviations of the net national income from the E.D.P. figures were slightly smaller because the higher growth rate in the G.D.P. resulted, on the one hand, in higher capital formation and consequently higher depreciation allowances, and on the other, in higher payments for factor services to the foreign sector. (In order to arrive at the net national income the depreciation allowances and net factor payments to the foreign sector must be deducted from the G.D.P.). The net national income was only R10 million higher than the E.D.P. projection in 1966, but R119 million higher in 1967. This relatively high level of income also resulted in a higher level of expenditure than that predicted by the E.D.P.

Table 1.1: National income and expenditure: E.D.P. projections as compared with the actual development
(R million)

	1965	1966			1967		
		Adjusted E.D.P. figures at 1966 prices	Realised figures	Difference	Adjusted E.D.P. figures at 1967 prices	Realised figures	Difference
INCOME							
G.D.P. at current prices	8,071	8,762	8,793	+31	9,449	9,607	+158
Depreciation	721	780	796	+16	845	868	+ 23
Net factor payments	232	243	248	+ 5	248	264	+ 16
N.N.I. at current prices[1]	7,118	7,739	7,749	+10	8,356	8,475	+119
EXPENDITURE							
Private consumption	4,994	5,376	5,458	+82	5,839	5,862	+ 23
Public consumption	941	1,105	1,073	-32	1,186	1,139	- 47
Net fixed capital formation	1,219	1,203	1,292	+89	1,278	1,342	+ 64
Change in inv ries	386	-	55)	+ 4	48	491)	+347
Residual item	-87	-	-51)		-	-96)	
Total expenditure	7,453	7,684	7,827	+143	8,351	8,738	+387
Balance on current account[2]	-335	+55	-87	-133	+5	-263	-268
N.N.I. at current prices	7,118	7,739	7,740	+10	8,356	8,475	+119
BALANCE OF PAYMENTS							
Gold production	775	795	768	-27	810	773	- 37
Exports[3]	1,235	1,421	1,373	-48	1,443	1,546	+103
Imports[4]	2,113	1,918	1,971	+53	2,000	2,318	+318
Net factor payments	232	243	248	+ 5	248	264	+ 16

1) N.N.I. = Net national income.

2) Excluding net transfer receipts

3) Exports of goods and services, excluding factor services.

4) Imports of goods and services, excluding factor services.

12. As regards developments on the expenditure side, Table 1.1 shows that the total domestic expenditure in 1967 was as much as R387 million higher than the projected level. The economic development was therefore characterised mainly by an excessively high expenditure level as compared with the E.D.P. projections as well as with the available national product, since domestic expenditure exceeded the net national income by R341 million over the two years. During 1967 in particular this over-spending was very high. The actual spending in 1966 was about R143 million higher than the level allowed for in the E.D.P., and in 1967 this deviation increased by a further R244 million so that the total domestic expenditure exceeded the E.D.P. figure by R387 million at the end of 1967.

13. The largest over-spending in 1966 relatively to the E.D.P. projections, occurred in private consumption expenditure and net fixed capital formation. The latter was R89 million or 7.5 per cent higher than the E.D.P. projection for this item, the reason for this being essentially the higher growth rate of 5.9 per cent, which naturally called for more capital formation than the target growth rate of 5½ per cent. Private consumption expenditure was R82 million, or 1½ per cent, higher than the E.D.P. projection. This over-spending can be attributed to two factors, viz. firstly, the somewhat higher national income than anticipated in the E.D.P. and, secondly, the higher average consumption propensity than that used in the E.D.P. The latter factor explains about R70 million of the over-spending in respect of private consumption expenditure. The current expenditure on goods and services by the public authorities was lower than the level projected in the E.D.P. for 1966. The actual figure was about R30 million lower than the E.D.P. projection.

14. Apart from the relatively sharp increase in prices arising from the over-spending in the economy, the result of the development of all the individual items was that the E.D.P. projections of a R55 million surplus on the current account of the balance of payments was not realised, and in fact a shortage of R78 million was recorded in 1966.

15. As far as the developments in 1967 are concerned, the biggest contribution to the over-spending came from investment in inventories. Whereas in the E.D.P. an inventory accumulation of R50 million was regarded as sufficient, the actual investment in inventories was no less than R491 million. This relatively high figure was the result of the large agricultural crops that could not be exported immediately, and the stock-piling of strategic materials. Apart from this, other inventories in commerce and industry also increased sharply in 1967. Private consumption expenditure was only R23 million, or ½ per cent, above the projected level in the E.D.P. As a result of the more rapid growth in the national income the private consumption expenditure - if determined on the basis of the same consumption propensity as that used in the E.D.P. - would have been R90 million higher than its realised value. The actual spending was indeed only R20 million higher than the E.D.P. figure - in other words, relatively to the higher national income there was under-consumption of about R70 million. This is due partly to the more severe credit restrictions and higher tax payments enforced by the Government.

16. As was the case in 1966, the 1967 public consumption expenditure was also lower than the level projected. Although the increase in net fixed capital formation was small, it was still R64 million above the E.D.P. level. The result of the changes in the different items was that

a deficit of R263 million instead of a projected surplus of R5 million was realised on the current account of the balance of payments. (Prices also increased sharply during the first half of 1 967).

17. In summarising the expenditure items, it can be stated that although private consumption expenditure exceeded the E.D.P. projections, this deviation was not excessive in relation to the higher national income. If the over-all development for the two years 1966 and 1967 is considered, the reasons for the over-spending appear to have been, firstly, the enormous inventory accumulation in 1967 and, secondly, the high level of fixed capital formation made possible by the capital inflow from abroad.

18. Since the level of domestic expenditure was considerably higher than the available national product, it was necessary to supplement the local supply of goods and services to a great extent with imports of goods and services. According to Table 1.1 the realised imports in 1966 were somewhat higher than the E.D.P. figure viz., by R53 million, or 2.8 per cent, but in 1967 imports increased to such an extent that the E.D.P. projection was exceeded by no less than R318 million. The increase in imports in 1967 was largely due to the high investment in inventories. The imports of goods and services were therefore exceptionally high in 1967. When the projections for imports in 1973 for the present E.D.P. are compared with the imports in 1967, the base year, it will be necessary to bear in mind the special factors which influences imports in 1967.

19. In the case of the other balance of payments items shown in Table 1.1, exports of goods and services in 1966 and 1967 were to a large extent influenced by exports of agricultural products. In spite of the sharp increase in the exports of manufacturing and mining products (excluding gold) in 1966, the total exports of goods and services were still R48 million below the E.D.P. target. Exports of manufacturing products increased further in 1967, and following the good crops, exports of agricultural products also increased markedly, with the result that realised exports in 1967 were R103 million higher than the E.D.P. projection. Exports of goods and services were therefore on a high level in 1967.

(c) Development according to industry

20. The growth in the economy as a whole having been discussed in the previous paragraphs, the next step is to deal with the development of the four main industries namely, agriculture, forestry and fishing; mining; secondary industry, which includes manufacturing industry, construction, electricity, gas and water; and the services industry. The two aspects that will be analysed here will be the growth in the volume of production and the employment in the various industries.

(i) Growth in production

21. There are no official statistics for recent years to indicate the changes in the real contribution of the various industries to the G.D.P., and consequently it was necessary to estimate these figures. For this purpose, indices of the volume of production were used and in the cases where such indices were not available suitable price indices were used to reduce the relevant series to constant prices. The growth rates thus calculated for the industries for 1966

and 1967 are set out in Table 1.2 together with the average growth rates since the publication of the first E.D.P. These growth rates can now be compared with the growth rates for the industries projected in the E.D.P. for the period 1966-1971. The reason why the average growth from 1963 to 1967 is also included in the table, is the fact that the growth rate of the individual production branches fluctuate considerably from one year to the next.

Table 1.2: The pattern of growth according to branch of industry in 1966 and 1967 and for the programming period, 1966-1971
(per cent)

	Growth rate in		Average growth rate for 1963-1967	Average growth rate in the E.D.P.
	1966	1967		
Agriculture, forestry and fishing	6.4	22.8	7.1	5.8
Mining and quarrying	6.1	-	4.0	2.6
Secondary industry	6.0	6.7	8.9	6.4
Services industry[1)]	5.7	5.6	5.7	5.8
Total	5.9	6.8	6.4	5.5

1) Derived as residual item.

22. The high growth rate of 5.9 per cent attained by the economy as a whole in 1966, as compared with the E.D.P.'s target growth rate of 5.5 per cent, was the result of the rapid growth in agriculture and mining. The rapid expansion in agricultural production in 1966 and 1967 was preceded by a year in which agricultural production actually decreased as a result of the poor agricultural conditions, hence the big increase in 1966 and 1967. The production of metal containing ores, such as copper, in particular increased by more than 25 per cent in 1966, resulting in an increase of 6.1 per cent in the volume of total mining production, even though gold output increased at a very slow rate. The rate of expansion of secondary industry was somewhat lower than the E.D.P. target for 1966 as a result of the small increase in construction, which had been on a very high level in the previous year. The growth in the services industry in 1966 was more or less the same as the E.D.P. projection.

23. The high growth rate in 1967 was mainly the result of agricultural production, which grew at the rate of 22.8 per cent in this year. The level of agricultural production in 1967 was higher than normal as a result of the exceptionally good agricultural crops during this year. After the rapid increase in 1966, the volume of mining production remained at the same high level in 1967. Gold production decreased slightly but other mining activities increased, with the result that total production maintained the level of the previous year. After a lull in 1966 construction activity again increased in 1967 and, together with the high growth in electricity output (9 per cent), resulted in a somewhat higher increase in the growth of secondary industry than envisaged in the E.D.P. for 1967.

24. From an analysis of the growth pattern during the period 1963-1967, it appears that the higher realised growth rate of 6.4 per cent as compared with the target growth rate of 5½ per cent for this period was due, firstly, to secondary industry, which reached an average growth rate of 8.9 per cent per annum during this period, and secondly, to agriculture, which expanded at an average rate of 7.1 per cent per annum over this period. The rapid growth in agriculture was attributable, as already mentioned, to the large output in 1967 which can be regarded as exceptionally high. The question arises what the growth rate of the economy would have been if agriculture had expanded at a normal rate. The first E.D.P. put the annual growth rate of agriculture at 4.3 per cent between 1963 and 1969, and if this rate of growth had actually been realised, the average growth rate of the economy as a whole would have been 6.25 per cent per annum instead of 6.4 per cent. Thus, even if allowance is made for a more normal expansion in agricultural output, the general level of economic activity would still have increased more rapidly than projected by the E.D.P. target rate.

25. In regard to the growth rate of the other two industries, the production of mining also increased at a higher rate than allowed for in the E.D.P. but the average growth rate of mining (4 per cent per annum) was lower than that of the economy as a whole. The realised growth in the services industry was more or less in line with the projected growth rate in the E.D.P.

26. Owing to the difference between the industrial growth pattern actually realised and that projected in the E.D.P., it can be expected that the actual employment pattern will also deviate from that delineated in the E.D.P. It is still important, however, to analyse the changes in employment, and this is done in the next section.

(ii) Employment in the respective industries

27. Before considering the changes in employment with the aid of the estimates in Table 1.3, it is necessary to point out that no official statistics are available showing recent trends of employment opportunities in agriculture. The estimates for this item included in the table are, in the case of the Whites, based on the trend shown by the number of persons with agriculture as their principal source of income, as shown in the annual reports of the Department of Inland Revenue. The employment of the non-Whites in agriculture, a large number of whom are working in the subsistence economy of the Bantu homelands, is estimated by extrapolating the trend displayed by the 1951 and 1960 population censuses. It is possible therefore that the actual employment in agriculture could differ materially from the estimates in Table 1.3.

28. With this qualification in mind, Table 1.3, which compares the 1966 and 1967 employment levels in the respective industries with those projected in the E.D.P. for the same years, shows that the labour market was characterised by a further rapid increase in the demand for labour, as indicated by the large increases in employment. According to the figures in Table 1.3 employment increased by no less than 3.3 per cent in 1966 as compared with a growth of 2.4 per cent in the population. The rate of expansion in employment decreased markedly in 1967 when total em-

ployment increased by 2.3 per cent as against the 3.3 per cent increase in the previous year.[1] The increase in employment in 1966 exceeded that envisaged in the previous E.D.P. by no less than 51,100 persons. Consequently, the level of employment in 1967 was still 36,500 persons above the level set in the E.D.P., notwithstanding the small increase in employment in 1967 as compared with the estimate in the E.D.P. The E.D.P. provided for an increase in employment of 157,400 in 1967, whereas the actual increase amounted to only 142,800.

Table 1.3: Employment by industry, 1965-1957
('000 persons)

Industry and Race		Employment			Deviation from E.D.P. projections[2]	
		1965	1966	1967	1966	1967
ALL RACES	Total	6,106.1	6,309.6	6,452.4	51.1	36.5
	Agriculture	1,856.2	1,884.0	1,912.1	-	-
	Mining	617.2	620.3	605.0	7.0	-4.5
	Secondary Industry	1,179.5	1,246.3	1,313.2	23.1	44.8
	Services industry	2,453.2	2,559.0	2,622.1	21.0	-3.8
WHITES	Total	1,239.2	1,286.5	1,320.8	13.4	14.4
	Agriculture	116.8	116.4	115.9	-	-
	Mining	61.7	61.8	60.2	0.5	0.7
	Secondary Industry	288.2	307.2	320.2	9.3	12.6
	Services industry	772.5	801.1	824.5	3.6	1.1
NON-WHITES	Total	4,866.9	5,023.1	5,131.6	37.7	23.5
	Agriculture	1,739.4	1,767.6	1,796.2	-	-
	Mining	555.5	558.5	544.8	6.5	-3.8
	Secondary Industry	891.3	939.1	993.0	13.8	32.2
	Services industry	1,680.7	1,757.9	1,797.6	17.4	-4.9

29. The employment of the various races to a large extent followed the same pattern as that of total employment. The largest expansion was recorded in 1966, while the increases in 1967 for both Whites and non-Whites were somewhat smaller than the projected increases in the E.D.P. As regards the Whites, employment increased by no less than 47,000 persons or by

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1) The average number of registered unemployed Whites, Coloureds and Asiatics was somewhat higher in 1967 (13,900 persons) than in 1966 (13,500 persons).

2) + : More than E.D.P. projections.
- : Less than E.D.P. projections.

3.8 per cent, in 1966. In contrast to this the increase in the economically active population as a result of the natural increase in the local population is normally estimated at approximately 20,000 persons per annum. In this year immigration was at an exceptionally high level and 38,000 persons from other countries settled in South Africa. This is the net figure. (i.e. after deducting the number of emigrants from the number of immigrants). In this manner the economically active population was increased by nearly 17,000 persons. The large increase in employment in 1966 was further made possible by an additional reinforcement of the economically active population, for example by a larger entrance of females to the labour market. (Unfortunately sufficient statistics are not available for a proper analysis of this aspect). The increase in the employment of Whites was appreciably smaller in 1967, namely 34,500 persons, or 2.7 per cent. A high level of immigration once again made possible this relatively large increase in employment. It is interesting to note that the employment opportunities for Whites increased more rapidly than those for the non-Whites, namely by 3.8 per cent in 1966 and 2.7 per cent in 1967, as compared with 3.2 per cent and 2.1 per cent respectively in the case of the non-Whites.

30. In 1966, when an additional 156,000 non-Whites found new work, their employment opportunities increased at a considerably higher rate than the growth in the economically active population, which is estimated at approximately 110,000 persons. Although the employment opportunities did not expand as markedly in 1967, the estimated increase in employment, namely 107,000 persons, was only slightly less than the increase in the non-White economically active population. Whereas the unemployment and/or under-employment of non-Whites had decreased substantially in 1966, it increased slightly in 1967, but the deduction can be made that for the period as a whole unemployment amongst the non-Whites must have declined substantially.

31. The question arises why employment showed a larger increase in 1966 than in 1967, while the economy as a whole grew by 6.8 per cent in 1967 as compared with only 5.9 per cent in 1966. The reason was that the rapid growth of the economy in 1967, must be ascribed to the large expansion in agricultural output following mainly on the favourable weather conditions, while the estimate of employment in this industry is based on the assumption that it increased at the "normal" rate in 1967. Excluding agriculture, the other sectors of the economy expanded by 5.1 per cent in 1967, and this relatively slow growth explains the small increase in employment in 1967. The slow growth in employment opportunities was limited mainly to the mining and services industry, as will appear from the discussion of these items.

32. In secondary industry employment increased at a high rate, viz. by 5.6 per cent in 1966 and 5.3 per cent in 1967, giving an average increase of 5.4 per cent for the two years. As a result of these sharp rises secondary industry employed 44,800 persons more in 1967 than envisaged in the 1966-1971 E.D.P. As against this increase in employment, the volume of production, as already mentioned, increased on average by 6.4 per cent per annum, implying an annual improvement of 1 per cent in the output per worker. The output per worker is affected by many factors, such as the extent of over-time work, capacity utilisation etc., and it is known that in 1967, less over-time was worked than in 1965. The increase in the output per worker actually realised in 1966 and 1967 was, however, substantially lower than the target of $2\frac{1}{2}$ per cent per annum set in the 1966-1971 E.D.P.

33. Employment in the services industry increased markedly in 1966, namely by 105,800 persons, or 4.3 per cent. This increase was also appreciably larger than that envisaged in the E.D.P. and the actual level of employment in this industry exceeded the E.D.P. projections by 21,000 persons in 1966. The situation changed materially in 1967 when the number of persons employed in this industry increased at a much slower rate, expanding by only 63,100 persons or by 2.4 per cent, with the result that 3,000 persons less than the figure projected in the E.D.P. were employed by this industry in 1967. The volume of output of this industry increased on average by 5.6 per cent per year in 1966 and 1967, according to the estimates in the previous section, while employment expanded at an average rate of 3.4 per cent, giving an increase in the output per worker of approximately 2.2 per cent per annum. This increase is the same as that allowed for the services industry in the previous E.D.P.

34. In regard to employment in mining, it increased slightly in 1966 when the volume of production showed a large expansion. The declining trend in the employment in mining was, however, resumed at an accelerated rate in 1967 so that the actual level of employment in this year fell short of the level set in the E.D.P. The decline in employment, with the accompanying increase in output achieved over these two years, implies an increase in the output per worker amounting to 4 per cent per annum. The previous E.D.P. envisaged an annual increase of 3 per cent in the output per worker for this industry.

2. The implications of the realised developments for the new E.D.P.

35. The most important aspect of the actual developments discussed in the foregoing paragraphs from the point of view of the Development Programme for 1968-1973 is the expansion of the economy at a more rapid rate and at a consistently higher level than required by the originally selected target growth rate. The question arises therefore whether the original target growth rate of 5½ per cent as from 1963 should still be accepted for the new E.D.P., or whether the growth potential of the economy was higher than the selected target growth rate so that it will be necessary to determine anew the growth potential of the economy for the new programming period?

36. If it is first assumed that the 5½ per cent growth rate from 1963 to 1969 is still the appropriate rate, an average growth rate of 3.7 per cent in 1968 and 1969 will then be sufficient for the realisation of the originally selected target rate. It is true that after the rapid expansion of the preceding years the economy should grow at a slower rate in order to alleviate the shortages on the labour market which was created at the time of the rapid expansion. It is not clear, however, whether the growth need be as low as 3.7 per cent per annum for a period of two years. If this should happen, it is possible that the economy may grow at a slower rate than its potential.

37. The above is an entirely mechanical exposition of the growth required in 1968 and 1969 on the basis of the growth actually realised between 1963 and 1967 and the target growth rate of 5½ per cent between 1963 and 1969. On the assumption that the correction of the excessively rapid growth of the recent past should not be limited to 1968 and 1969 only, but should instead be spread over the whole of the next programming period, the target growth rate for the new

E.D.P. should amount to 4.9 per cent if it is accepted that the growth rate of 5½ per cent as from 1963 still represents the growth potential of the economy.

38. It is, however, possible that, owing to the factors discussed in section 1(a) above, the growth potential of the economy for the period 1963-1967 could have been higher than the target growth rate of 5½ per cent with 1963 as base year. The higher immigration level, the inflow of foreign capital and the increased employment of non-Whites enabled the economy to grow at a higher rate than the original target growth rate. Consequently it is not justified to use the growth rate of 5½ per cent as from 1963 as a basis for determining the target growth rate between 1967 and 1973. It therefore seems advisable to determine anew the growth potential of the economy that may serve as a target growth rate for the next programming period, namely 1968-1973. To this end the implications of three different growth rates in the real G.D.P. are investigated in this E.D.P. as was done in the first and second Programme. On the strength of this analysis the target growth rate for the next programming period can be decided upon. The three growth rates selected for this analysis are growth rates of 5, 5½ and 6 per cent in the real G.D.P. between 1967 and 1973. As already mentioned, a continuation of the originally selected target growth rate of 5½ per cent requires an annual growth of 4.9 per cent between 1967 and 1973. The 5 per cent growth alternative included in this analysis therefore represents more or less a continuation of the original target growth rate. To determine whether the growth potential of the economy is higher over the medium term, it has been decided also to calculate the implications of a 5½ and 6 per cent growth between 1967 and 1973. This is undertaken in the following chapters.

CHAPTER II

THE GROSS DOMESTIC PRODUCT AND ITS UTILISATION

39. The purpose of this chapter is to ascertain which one of the growth rates that are analysed, namely an annual expansion of 5, 5½ and 6 per cent in the real G.D.P. between 1967 and 1973, is the maximum growth rate attainable with the available savings. The "modus operandi" is briefly as follows. For each growth rate analysed, it is determined whether the expenditure level, as decided by the autonomous users at the respective income levels, is in equilibrium with the available income. To this end it is necessary, firstly, to reduce the G.D.P. to the net national income, and secondly, to determine the accompanying expenditure levels. The projections made for the income and expenditure items are shown in Table A at the end of this document for each of the years included in the programming period. For the purpose of facilitating the discussion of the projections, the figures for the first and the last year, namely 1968 and 1973, are repeated in Table 2.1 below.

40. The figures for all three growth rates are shown here, although only those for the target growth rate, which has not been decided upon at the time of the preparation of this document, will be of practical value for the formulation of policy and for the private sector. After the Government has decided on a target growth rate for the programming period, the figures of the other two growth rates will have no further value in practice. The figures for the target growth rate shown for the intervening years in Table A, should be interpreted as points on the medium term trend line around which the actual developments will fluctuate if the target growth rate should be realised over the programming period as a whole.
The projections in the E.D.P., therefore, are not forecasts.

41. The figures in this E.D.P. refer only to the Republic and South West Africa, unlike the projections in the previous E.D.P. which included the adjoining countries Lesotho, Botswana and Swaziland. Since the official statistics on the national accounts and the balance of payments as published by the South African Reserve Bank still include these countries, it was necessary to adjust the published figures to exclude them. For this purpose the Reserve Bank supplied valuable information. It must be pointed out, however, that the adjustments made in respect of the balance of payments are based on preliminary information with a consequent large margin of error. Since the magnitude of these figures is, on a percentage basis, rather small, the adjustments will not materially affect the over-all picture.

42. After these introductory remarks the implications of the respective growth rates can now be analysed.

1. The net national income

43. The growth rates of the G.D.P., included in the analysis, having been decided upon, the course of the G.D.P. for the respective growth rates can then be easily calculated for each year in the programming period. If the real G.D.P. (in terms of 1967 prices) should, for

example, grow annually by 5 per cent, it would increase over the 6 year period from R9,517 million in 1967 to R12,750 million in 1973. A change of one half per cent in the growth rates means a difference of R370 million in the G.D.P. after six years.

44. To reduce the G.D.P. to the net national income it is necessary, in the case of South Africa, to deduct the depreciation allowance of fixed assets, net factor payments for foreign capital and labour, and the deterioration in terms of trade from the G.D.P.

45. The depreciation allowance represents the depreciation and reduction of the capital stock in the process of producing the G.D.P. This item of the national accounts increases sharply. Over the six year period 1961-1967, for example, it has increased by 63 per cent, or on average by 8.5 per cent per annum. For the programming period provision is made for a growth of 8.3, 8.9 and 9.4 per cent per annum in the depreciation allowance for the growth rate of 5, 5½ and 6 per cent in the real G.D.P. respectively. Since the depreciation allowance is deducted from the G.D.P. to arrive at the net national income, the rapid increase in the depreciation allowances entails a slower growth in the net national income as compared with the G.D.P.

46. Since part of the G.D.P. is partly produced with the aid of foreign capital and labour, the remuneration accruing to these production factors must be deducted from the G.D.P. to arrive at the national income. The term "net" is used in the tables to indicate that the earnings of South African residents in foreign countries have been deducted from the payments of foreigners. After increasing slightly over the period 1957-1964, payments under this item rose markedly during the boom period 1964-1967. Owing to the relatively high level reached in 1967 net factor payments are put at R360 million in 1973 for the 5 per cent growth alternative as compared with R329 million in 1967.[1] For the other two growth rates net factor payments are put at a slightly higher level, i.e. R380 million and R390 million for the 5½ and 6 per cent growth rates respectively.

47. Since the G.D.P. and the national income are expressed in constant 1967 prices it is necessary to make an adjustment for changes in the terms of trade which arise because import and export prices do not necessarily change to the same extent over the programming period. The magnitude of this item is determined by the magnitude of foreign trade and the changes in both export and import prices. It is extremely difficult to forecast the changes in these prices. An historical analysis of the course taken by import and export prices shows that the terms of trade, on balance, deteriorated during the nineteen fifties, but during the first part of the sixties no clear trend was perceptible. A deterioration in the terms of trade in one year was followed by an improvement the next year. For this reason the allowance made for a deterioration in the terms of trade in this E.D.P. is much smaller than that made in previous E.D.P.'s. The terms of trade adjustment amounts to R20 million for 1973 in the case of the 5 per cent growth alternative and R30 million for the 5½ and 6 per cent growth alternatives.

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1) The flow of capital between South Africa and foreign countries, which affects this item to a large extent, is dealt with in Chapter III.

48. After the above adjustments have been made, the net national income is arrived at, and this item increases by 4.7, 5.2 and 5.7 per cent per annum for the 5, 5½ and 6 per cent growth rate in the G.D.P. respectively. Thus, if the G.D.P. should increase by 5½ per cent per annum the net national income could be expected to increase annually by 5.2 per cent. Considering that the population increases by an average annual rate of 2.4 per cent, this expansion in the total net national income will entail an increase of 2.8 per cent per annum in the per capita income of the population. In the case of the other two growth alternatives, namely those of 5 and 6 per cent, the calculations imply an annual growth of 2.3 and 3.3 per cent respectively in the per capita income of the population. These increases compare with an average growth of 2.1 per cent in the per capita income during the decade 1957-1967. A growth rate of about 5 per cent per annum in the real G.D.P. will increase the living standard, as reflected in the per capita income, at the same rate as that reached over the preceding 10 years, and a higher growth rate will amount to an improvement on the previous achievements.

Table 2.1: Net national income and expenditure for the programming period 1968-1973[1]
(R million in terms of 1967 prices)

	1967	5% Growth rate		5½% Growth rate		6% Growth rate	
		1968	1973	1968	1973	1968	1973
INCOME							
1. G.D.P. at market prices	9,517	9,990	12,750	10,040	13,120	10,090	13,500
2. Depreciation	863	930	1,390	940	1,440	940	1,480
3. Factor payments[2]	329	320	360	330	380	340	390
4. Changes in the terms of trade[3]	-	-	-20	-	-30	-	-30
5. Net national income	8,325	8,740	10,980	8,770	11,270	8,810	11,600
EXPENDITURE							
6. Private consumption	5,789	6,120	7,580	6,140	7,800	6,160	7,980
7. Government consumption	1,110	1,160	1,550	1,170	1,560	1,180	1,580
8. Capital formation[4]	1,325	1,260	1,540	1,340	1,690	1,430	1,840
9. Inventory accumulation	491	150	180	150	220	180	230
Balancing item	-136	-	-	-	-	-	-
10. Total expenditure	8,579	8,690	10,850	8,800	11,270	8,950	11,630
11. Balance on current account[5]	-254	50	130	-30	-	140	-30
12. Expenditure on net national product	8,325	8,740	10,980	8,770	11,270	9,090	11,600
SUPPLEMENTARY INFORMATION							
13. Transfer receipts[6]	38	40	50	40	50	40	50
14. Total balance on current account[3]	-216	90	180	10	50	-100	20
15. Gross fixed investment	2,188	2,190	2,930	2,280	3,130	2,370	3,320
16. Net saving[5]	1,420	1,460	1,850	1,460	1,910	1,470	2,040
17. Consumption and saving as % of net national income							
(i) Private consumption	69.54	70.02	69.03	70.01	69.21	69.92	68.79
(ii) Government consumption	13.33	13.27	14.12	13.34	13.84	13.39	13.62
(iii) Saving	17.13	16.71	16.85	16.65	16.95	16.69	17.59
18. Gross fixed investment as % of G.D.P.	22.99	21.92	22.98	22.71	23.86	23.49	24.59

1) All figures relate to the Republic and South West Africa only.
2) Net factor payments to other countries after deducting factor receipts.
3) Items 4, 11 and 14 are in current prices. (Item 14 includes net foreign transfer receipts, i.e. after deducting transfer payments to other countries).
4) This item represents net fixed capital formation.
5) Excluding transfer receipts from and payments to foreign countries.
6) Net transfer receipts from other countries after deducting transfer payments.

2. Utilisation of the national income

49. After the net national income for the programming period has been projected, the expenditure levels that will accompany each growth rate can be determined, and in this way the growth rate can be selected at which income and expenditure will more or less be in equilibrium. The following items appear on the expenditure side: private consumption expenditure, current expenditure by general government, net fixed capital formation, and investment in inventories. The projections made for each item can next be discussed.

(a) Private consumption expenditure

50. Private consumption expenditure is the largest item on the expenditure side, and 69.5 per cent of the net national income was used for this purpose in 1967. During the programming period this item will increase on average by 4.6, 5.1 and 5.5 per cent per annum if the G.D.P. is to grow by 5, 5½ and 6 per cent respectively. These increases in private consumption expenditure are somewhat smaller than the expansions in net national income that accompany the corresponding growth alternatives. For the 5½ per cent growth alternative, for example, the net national income increases, as already mentioned, by 5.2 per cent, while the average growth rate for private consumption expenditure amounts to 5.1 per cent. The reason for this is that with a growing economy a larger part of the national income is, firstly, retained as company savings and, secondly, paid as taxes, in the case of South Africa, with the result that a smaller part of the national income is available for personal income (after taxation) and thus, for consumption. Personal disposable income, which has fluctuated around 90 per cent of the net national income during the years immediately before and after 1957, has indeed declined to about 85 per cent by 1967.

51. In Chapter I it was mentioned that private consumption expenditure was slightly below the trend value in 1967, the base year of the present E.D.P., and for this reason the 1968 projection for private consumption shows a relatively large increase. Whereas this item constituted 69.54 per cent of the net national income in 1967 it increases for the 5 per cent growth alternative, for example, to 70.02 per cent of the net national income in 1968. After this, however, the average level decreases to 69.03 per cent of the net national income by 1973.

52. The level of private consumption shown in Table 2.1 can be regarded as the normal level around which the actual expenditure (at the prevailing tax rates) will be inclined to fluctuate. Given the magnitude of the other expenditure items, which cannot be influenced by Government measures without also affecting the growth rate, the total expenditure level will be less than the available product in the case of the 5 per cent growth alternative. The difference between the expenditure is shown in Table 2.1 as a surplus on the current account of the balance of payments (excluding transfer receipts). In practice, however, capital formation will tend towards a higher level than that calculated for this growth rate in Table 2.1, and consequently the growth rate of the economy will also tend to exceed 5 per cent. The policy implications are that it would be necessary to stimulate consumption (with tax concessions, for example) if the 5 per cent growth rate should be accepted as the target growth rate. With due regard to the assumptions underlying the projections of the current expenditure by general government and that of capital formation,

private consumption expenditure can be allowed to increase to 70.2 per cent of net national income in 1973 in the case of this growth alternative without causing imbalance on the current account of the balance of payments.

53. As regards the level of private consumption expenditure at the 5½ per cent growth rate, it may be mentioned that at the calculated level of this item total expenditure and income will be more or less in equilibrium and small surpluses will be recorded on the balance of payments. It would therefore appear that with the existing tax structure, no specific measures will be called for in so far as private consumption expenditure is concerned.[1)]

54. In the case of the 6 per cent growth rate the level of expenditure as determined by the autonomous users at this income will exceed the available income. For the attainment of this growth rate, viewed only from the point of view of the availability of savings, a decrease in consumption expenditures by means of taxation will be required, followed by a corresponding increase in savings of the government sector. The extent to which consumption expenditure will have to be reduced, will depend on the inflow of foreign capital. Without any inflow of capital a reduction of approximately R100 million per annum will be required in the "normal" level of private consumption expenditure. Before considering whether this would be possible or not, it is appropriate to investigate the implications of the other factors for a growth rate of 6 per cent.

(b) Current expenditure by general government

55. Current expenditure by general government, which is also referred to as government consumption expenditure, includes expenditures on goods and services required for rendering government services, excluding services of business enterprises of the public authorities. Expenditures in respect of investments in fixed assets are included with capital formation. General government therefore comprises only the general departments of the central government, the provincial administrations, the local authorities, the administration of South West Africa and other statutory institutions such as the social security funds, the Council for Scientific and Industrial Research, the S.A. Bantu Trust, etc.

56. Whereas the other expenditure items are to a certain extent correlated with either the G.D.P. or the national income, the magnitude of current expenditure by general government is mainly determined by autonomous factors, which makes it very difficult to project this item. This aspect will be discussed again in Chapter V where the finances of the public sector are further analysed.

57. According to the projections in Table 2.1 government consumption expenditure increases by 5.7, 5.8 and 6.1 per cent per annum for the 5, 5½ and 6 per cent growth alternatives respectively. For all three growth rates analysed the increase in this item is substantially higher

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1) At this stage it is not possible to determine how the measures that may follow from the recommendations of the Commission of Enquiry into the Fiscal and Monetary Policy in South Africa, will affect private consumption expenditure.

than the growth in the net national income. If the G.D.P. should grow by 5 per cent per annum, for example, the annual increase in the net national income would amount to 4.7 per cent, as compared with an increase of 5.7 per cent per annum in government expenditure. Since the course of this item is determined mainly by autonomous factors and it therefore does not increase in direct proportion to the expansion of the economy, only a small increase in government expenditure above the level projected for the 5 per cent growth alternative is allowed in the case of the other growth alternatives.

58. Since government expenditure grows more rapidly than the national income, it increases as a percentage of net national income from 13.33 per cent in 1967 to 14.12, 13.84 and 13.62 per cent in 1973 for the 5, 5½ and 6 per cent growth alternatives respectively. This development is more or less in agreement with the experience of the recent past. During the nineteen fifties the share of government expenditure in the national income remained unchanged on balance, with a slightly increasing trend noticable as from 1955. With the sharp rise in defence expenditures total government expenditure increased from 11.5 per cent of the net national income (at market prices) in 1960 to 13.3 per cent in 1967, and, as already mentioned, a further slight increase in this ratio is envisaged for the programming period.

59. Owing to the rapid increase in government expenditure relative to the net national income, and since private consumption expenditure does not show a correspondingly smaller increase, the rate of saving declines slightly for the 5 and 5½ per cent growth alternatives. In 1967 net saving[1)] equalled 17.13 per cent of net national income at market prices and it is set at 16.85, 16.95 and 17.59 per cent of net national income for the 5, 5½ and 6 per cent growth alternatives respectively.

(c) Net fixed capital formation

60. The net fixed capital formation as shown in Table 2.1 represents the investments in machinery, equipment and buildings that are required for attaining the respective growth rates. This implies that the investment levels cannot be changed without affecting the growth rates. From the analysis in Chapter I it appeared that capital formation was on a high level in 1967 as compared with the E.D.P. figure because it was based on growth rates higher than the target growth rate. Owing to this high rate of investment in 1967 only small increases in net fixed investment above the level in the base year are allowed for the programming period. According to Table 2.1 net fixed investment is set at R1,540 million for the 5 per cent growth alternative in 1973. This is only 16.2 per cent higher than the net fixed investment in 1967, and represents an average annual growth rate of only 2.6 per cent. For the other growth rates, namely 5½ and 6 per cent, the annual

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1) Net transfer receipts from abroad and the balancing item are excluded from saving for the purpose of the above calculations. Net saving as published in the Quarterly Bulletin of the South African Reserve Bank includes these items, and was equal to 19.7 per cent of the net national income at market prices in 1967.

increases in net fixed capital formation are set at 4.1 and 5.6 per cent respectively.[1] Owing to the rapidly increasing depreciation allowance the growth rate of gross fixed investment is appreciably higher than that of net fixed investment. Thus, gross fixed investment increases by 5.0, 6.1 and 7.2 per cent per annum for the 5, 5½ and 6 per cent growth alternatives respectively. This relatively rapid increase in gross investment implies that an increasing share of the G.D.P. has to be used for maintaining a high growth rate. For the 5½ per cent growth alternative, for example, the gross fixed investment for 1973 equals 23.86 per cent of the G.D.P. as compared with 22.99 per cent in 1967.

(d) Investment in inventories

61. Although the level of stocks kept within a country is affected in the short term by business prospects and consequently is subject to large fluctuations from year to year, it may be accepted that over the medium term investments in stocks will move in step with overall economic activity. The projections of changes in stocks shown in Table 2.1 should therefore be interpreted as the normal expansion in inventories that can be expected in a growing economy. The allowance made for investments in stocks during the programming period is substantially lower than the large inventory increase in the base year when inventories were supplemented by no less than R491 million. This increase must, as mentioned in Chapter I, be regarded as exceptionally large. The normal increase in stocks is set at between R150 million and R180 million per annum for the 5 per cent growth alternative. For an expansion of 5½ per cent per annum in the real G.D.P. the normal increase in stocks is estimated at between R150 and R220 million, and for the 6 per cent growth rate the corresponding figures are R180 million and R230 million.

(e) The balance on the current account of the balance of payments

62. The balance on current account of the balance of payments (excluding transfers) as shown in Row 11 of Table 2.1 and Table A, indicates the extent to which the projected expenditure items deviate from the income for each of the growth rates analysed.

63. If the real G.D.P. should grow by 5 per cent per annum and the expenditure items should increase according to the normal rates allowed for each item, the expenditure would then be less than the income by amounts varying between R50 million and R130 million per annum over the programming period. According to this somewhat mechanical approach it is shown in Table 2.1 that surpluses of this magnitude will be recorded on the current account of the balance of payments

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1) The growth rates quoted for net fixed investments are affected by an adjustment made in respect of depreciation allowances. Since the depreciation allowances in the national accounts are calculated on the basis of the original prices paid for the assets, it is necessary to adjust the real depreciation allowances, calculated for the purpose of the E.D.P. in terms of constant 1967 prices, in order to agree with those in the national accounts. The result of this adjustment is that the depreciation allowance as shown in the tables increases more rapidly, whereas the net fixed investment grows slower than would have been the case had the adjustment not been effected. The adjustment does not affect total gross fixed investment. See also Economic Development Programme for the Republic of South Africa, 1965-70, p. 18.

(excluding transfer payments to and receipts from abroad). The importance of this calculation, however, is that the deduction can be made that the economy does not develop to the maximum of its financial potential when it expands by 5 per cent per annum.[1)]

64. For a growth rate of 5½ per cent per annum in the G.D.P. between 1967 and 1973 it is estimated that income and total expenditure will practically be in equilibrium. The expenditure is slightly higher than the income, but the difference is less than the transfer receipts from abroad, so that the current account of the balance of payments will in total still register a small surplus. Seen as a whole, it would appear that the balance of payments will not constitute a bottle-neck at this growth rate, but on the contrary will be more or less in equilibrium.

65. In the case of the 6 per cent growth rate Table 2.1 shows that expenditure will substantially exceed income with the result that the balance of payments in current account (excluding net transfer payments from abroad) will show deficits varying between R140 million for 1968 and R30 million for 1973. Even after net transfer payments from abroad have been taken into account the current account will still be in deficit over the first five years, ranging from R100 million in 1968 to R20 million in 1972. For 1973 a surplus of R20 million is estimated. The attainment of this growth rate will be possible only if foreign capital should flow into the country, or if consumption expenditure should be curtailed by means of fiscal and monetary measures.

66. The developments on the balance of payments in current account have been derived in this chapter from the levels of the income and expenditure items in the national accounts. The development of the imports and exports of goods and services should, however, be analysed separately and this is done in the next chapter.

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1) In practice investments will tend to move to a higher level in a situation such as described above where savings exceeds investment, with the result that the growth rate will be higher, unless counter-measures are taken.

CHAPTER III

FOREIGN TRADE AND THE BALANCE OF PAYMENTS

67. In Chapter II the balance on current account of the balance of payments was derived from the development of the national income and expenditure items, on the assumption that these items follow the respective trend values. In this chapter the implications of the balances on current account obtained in this way for the import and export items on the foreign account, will be considered. The items on the trade account are discussed first, and then those on the services account are considered.

1. The trade account

68. The trade balance is determined by the difference between the imports and exports of goods together with the gold production. The projected magnitude of these items during the programming period is shown at constant prices, for each of the years in the programming period, in Table B at the end of this document. For convenience of the discussion a summary of this table is given in Table 3.1 below.

(a) Imports of goods

69. Imports fluctuated considerably from year to year and these fluctuations are determined in the short term by the level of domestic expenditure in relation to the disposable income. As has been mentioned, imports were exceptionally high in 1967, when they amounted to 20.8 per cent of the G.D.P. as compared with 19 per cent in the previous year. The figures on imports, as shown in Table B, represent, with due consideration to the import replacement that will take place, the normal level of imports at the respective growth rates. The projected increases in imports up to 1973 are small compared with 1967, but if the 1966 import level is used as a basis for comparison, the increases are reasonably large. For example, the estimated imports for 1973 at the $5\frac{1}{2}$ per cent growth rate, namely R2,190 million, are only 11 per cent above the imports of 1967, but exceed the 1966 imports by 31 per cent. By 1973 imports are estimated to be equal to 16.6, 16.7 and 16.8 per cent of the G.D.P. for the 5, $5\frac{1}{2}$ and 6 per cent growth rates respectively. As a result of the annual fluctuations in merchandise imports it is difficult to determine the "normal" import level for the base year. If this level is set at 19.5 per cent of the G.D.P. the projected imports in the case of the $5\frac{1}{2}$ per cent growth rate imply an import replacement of R360 million during the programming period as a whole, amounting to an average of R60 million per annum. In the light of past performances this appears to be a reasonable target.[1] At this stage it is not

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1) Between 1937 and 1957 import replacement at 1957 prices is estimated at R1,155 million, or an average of R57 million per annum. As the production structure has since improved, it should be possible to achieve this rate of import replacement. As against this it must be considered that South Africa's imports at present consist mainly of intermediate and capital goods, which are more difficult to manufacture locally as a result of such factors as the advantages of large-scale production inherent in the manufacturing of these products.

clear, however, how the relaxation of import control that was introduced since 1967, will affect the tempo of import replacement.

Table 3.1: The balance of payments on current account for the period 1968-1973[1)]
(R million)

	1967	5% Growth rate		5½% Growth rate		6% Growth rate	
		1968	1973	1968	1973	1968	1973
Receipts at 1967 prices							
Exports of goods	1,312	1,420	1,880	1,420	1,850	1,400	1,910
Gold production	773	780	800	780	800	780	800
Total goods	2,085	2,200	2,680	2,200	2,650	2,180	2,710
Receipts for non-factor services	310	310	360	320	370	330	380
Receipts for factor services	91	90	110	90	110	90	110
Net transfer receipts	38	40	50	40	50	40	50
Total receipts	2,524	2,640	3,200	2,650	3,180	2,640	3,250
Payments at 1967 prices							
Imports of goods	1,976	1,820	2,120	1,890	2,190	1,970	2,270
Payments for non-factor services	344	320	410	330	420	340	430
Payments for factor services	420	410	470	420	490	430	500
Balance on current account in constant 1967 prices	-216	90	200	10	80	-100	50
Effect of changes in the terms of trade	-	-	-20	-	-30	-	-30
Balance on current account in current prices	-216	90	180	10	50	-100	20

1) The figures apply to the Republic and South West Africa only.

(b) The exports of goods

70. In order to achieve the estimated balances on the current account as well as to be able to maintain a high level of merchandise imports, it is necessary that exports must maintain a high level. Particularly because it is expected that gold production will in future grow at a relatively slower rate, it is necessary for merchandise exports to show a relatively large increase in order to maintain the high level of imports. Whereas the production of gold increased by 34 per cent during the period 1961-1967 it is estimated that the expansion will amount to only 3.6 per cent for the six years 1967-1973. This outlook of a relatively slow increase in the gold production entails that either the goods exports or import replacement, or both, will during the next six years

have to make a larger contribution than in recent years to a balanced development in the trade account.

71. For the 5 per cent growth rate exports are set at R1,880 million, which is 43 per cent higher than the exports in the base year. This relatively high export level is necessitated by the large surplus on the current account of the balance of payments for this growth rate, which arises from the course of the income and expenditure items as discussed in the previous chapter. If the large surplus of R180 million for 1973 is left out of account, an increase of 29.5 per cent in the exports of goods will be sufficient to pay for the estimated imports of goods and services at this growth rate.

72. The 1973 merchandise export level for the 5½ per cent growth rate is set at R1,850 million, or 41 per cent above the 1967 level. This increase in merchandise exports is relatively high considering that exports had already reached a high level in the base year, 1967. In order to attain the projected development on the balance of payments, this level of exports must be regarded as a minimum target. The projected exports for each of the industries for the 5½ per cent growth alternative are shown in Table 3.2.

Table 3.2: Exports according to industry[1] at constant 1967 prices
(R million)

Industry	1967	1973	Percentage increase 1967-1973
Agriculture, forestry and fishing	305	420	37.6
Mining (excluding gold)	391	515	33.1
Secondary industry	616	915	48.5
Total	1,312	1,850	41.0

1) The f.o.b. values of the merchandise exports, including re-exports, are shown.

Source: The 1967 figures were compiled from information obtained from the Department of Customs and Excise and the S.A. Reserve Bank, while the 1973 figures are based on the sectoral estimates in Chapter VII.

73. From discussions held with the different sectors of the above-mentioned industries, it appeared that these export levels in 1973 may well be achieved. Although agriculture experienced an exceptionally good year in 1967, not all the available products were exported in that year. The increase of 5.5 per cent per annum in the exports of agricultural products between 1967 and 1973 appears to be reasonable under normal climatic conditions if it is considered that the volume of exports of agricultural products increased by an average of 6 per cent per year during the post-war years. In so far as exports of mining products (excluding gold) are concerned, the percentage increase in the export volume is set at 33.1 per cent between 1967 and 1973, which is equal to an average growth rate of 4.5 per cent per year. The increase in the volume of exports of

the products of secondary industry is set at 48.5 per cent between 1967 and 1973. This growth rate, which averages 6.8 per cent per annum, is the highest of all the industries, but in the light of recent developments in exports of manufactured products it would appear that the projected export level of manufactured goods is attainable. Since South African manufactured goods are in part exported to Rhodesia and other African countries, the growth in exports will be influenced by developments in these countries.

74. From the point of view of general economic development it makes no difference whether the exports of a specific industry deviate from the 1973 level as indicated in Table 3.2 and discussed above, as long as the over-all export level is achieved. If total exports should fall short of the projected level, however, it may cause a structural disequilibrium in the country's foreign trade with accompanying balance of payments problems, which will hamper the attainment of the target growth rate.

75. For the 6 per cent growth alternative the growth in merchandise exports is higher than in the case of the $5\frac{1}{2}$ per cent growth target, with a view to maintaining the higher level of imports required for this growth alternative. For this growth alternative exports are set at R60 million above those of the $5\frac{1}{2}$ per cent growth rate in 1973, and the increase in the volume of exports amounts to 6.5 per cent per annum.

2. The services account

76. The services account gives the balance between the payments and receipts in respect of factor and non-factor services.

(a) Factor services

77. The payments in respect of factor services comprise the remuneration of foreign capital and labour for their participation in the production of the G.D.P. The factor receipts shown in Table 3.1 thus represent the remuneration of South African capital and labour for their participation in the economic activities of other countries, and the factor payments are similar earnings by foreign production factors from their participation in the generation of the South African G.D.P. The changes in the net factor payments (i.e. the difference between the factor payments and receipts) have already been discussed in Chapter II in connection with the determination of the net national income.

78. According to Table 3.1 the factor receipts for all three growth rates increase from R91 million in 1967 to R110 million in 1973. Since this item reflects the profitability of the investments of South African residents abroad, it is difficult to anticipate its course. Although factor receipts show an increase from R47 million in 1963 to R91 million in 1973, allowance is made for only a small increase (20 per cent) over the programming period. In so far as factor payments are concerned, they are expected to increase from R420 million in 1967 to R490 million in 1973 for the

5½ per cent growth alternative.[1] For the 5 per cent growth alternative factor payments in 1973 are set at R20 million below this figure and for the 6 per cent growth alternative at R10 million above it.

(b) Non-factor services

79. The receipts in respect of non-factor services can be classified under various headings, the most important items being transport and insurance of goods and persons, the provision of ships' stores and the revenue from the tourist trade. The receipts for non-factor services increase from R310 million in 1967 to R360 million, R370 million and R380 million for the 5, 5½ and 6 per cent growth rates respectively. The receipts for this item have moved to a higher level in 1967 on account of the larger sea traffic in South African ports since the closure of the Suez Canal. For this reason a relatively small increase is estimated in this item between 1967 and 1973. For example, the increase is set at 19.4 per cent or 3 per cent per annum in the case of the 5½ per cent growth rate. In respect of the non-factor payments, of which the most important item is the freight rate and insurance on imported goods, provision has also been made for a small increase between 1967 and 1973. Because of the high import level in the base year and the large payments in respect of freight and insurance arising from this, the projected payments for non-factor services increase by only 22 per cent during the programming period for the 5½ per cent growth alternative, viz., from R344 million in 1967 to R420 million in 1973.

(c) Transfer payments and receipts

80. The last item on the balance of payments distinguished in Table 3.1, is the net transfer payments to or receipts from abroad. During recent years transfer receipts from abroad exceeded payments to foreign countries, so that South Africa was a net receiver of foreign transfer payments. These net receipts, consisting to a large extent of funds brought in by immigrants, have increased sharply since 1963 and amounted to R38 million in 1967. For all three growth alternatives provision has been made for a further increase over the programming period so that a level of R50 million is attained in 1973.

3. The balance on current account of the balance of payments

81. Since the different items as discussed above, is expressed in terms of constant 1967 prices, the balance on the current account of the balance of payments, which has been arrived at by deducting the payments items from the receipts items, is also expressed in constant

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1) The course of the factor payments is largely determined by the level of foreign investments in South Africa. It is part of the aim of the E.D.P. to determine the growth potential which could be achieved on the basis of domestic savings. For that reason the developments in the balance of payments are discussed in general on the assumption that during the programming period no net inflow or outflow of capital will occur from or to abroad. In order, however, to make sufficient provision for factor payments to foreign countries it has been assumed in the calculation of this item that foreign investments in South Africa will increase as a result of the re-investment of profits and the inflow of long-term capital to an amount of R50 million per annum.

1967 prices. By adjusting these balances for changes in the terms of trade, which were discussed in Chapter II, the balance on the current account of the balance of payments at current prices is found. Because of the deterioration in the terms of trade for which provision has been made, the balances at current prices are lower than the balances based on 1967 prices.

82. The balance on the current account of the balance of payments at current prices changes from a deficit of R216 million in 1967 into a surplus of R50 million in 1973 for the 5½ per cent growth alternative. For the programming period as a whole the total of the surpluses on the current account of the balance of payments amount to R130 million for this growth rate. In the case of the 5 per cent growth alternative the deficit in 1967 changes into a surplus of R180 million in 1973. In total the surpluses amount to R760 million. Although the balance on the current account shows a surplus of R20 million in 1973 for the 6 per cent growth rate, the total of the balances on current account will amount to a deficit of R340 million over the programming period as a whole.

4. Implications for the balance of payments

83. Two factors are of particular importance for the developments on the balance of payments during the programming period. The first factor is the small anticipated increase in exports of gold (assuming that the gold price remains at the same level as in 1967). This means that either the exports of other products will have to increase at a faster rate, or import replacement will have to occur on a larger scale (or a combination of both) than would have been necessary if a larger increase in the production of gold could have been relied upon. If the gold production should for example increase at the same rate as the G.D.P. then it would amount to R266 million more than the projected figure for 1973 at the 5½ per cent growth rate. The second factor which is of importance for the balance of payments, is that the extent of import replacement, especially during the initial years of the present programming period, may be influenced by the relaxation of import control. Although it was never the purpose of import control to be employed as a protective measure, and import control tends to increase the domestic cost structure, it has nevertheless protected local producers and also encouraged import replacement. It has been pointed out that during the programming period a structural adjustment will have to be effected since it will be necessary either to increase exports or to encourage import replacement. It follows that tariff policy will again have to take its rightful place in order, where necessary, to provide a reasonable measure of effective protection to deserving industries confronted with competition from imported goods.

CHAPTER IV

THE SUPPLY OF AND DEMAND FOR LABOUR

84. It is the purpose of this chapter to analyse the implications of the three growth rates in the real G.D.P. in so far as labour is concerned. The procedure is briefly as follows: firstly, the supply of labour is determined and then the demand for labour generated at each growth rate is estimated on the assumption that sufficient labour will be available. After the demand has been calculated, it is compared with the supply, and in this manner it can be determined whether a shortage or suplus of labour will exist in the case of each growth rate.

85. As sufficient statistics in respect of employment in South West Africa are not available, it was not possible to include this area in the analysis, and all the figures in this chapter therefore apply to the Republic only. The estimates of the supply of and demand for labour for each of the six years in the programming period are shown in Table C at the end of this document, while Table 4.1 below contains a summary of the data concerned.

1. The supply of labour

86. The number of employees available is determined mainly by the population growth, but in recent years the European labour force in South Africa has been supplemented considerably by immigration. In Chapter I it was pointed out that the net level of immigration has recently fluctuated around 32,000 persons a year, which is considerably higher than the net immigration figure of 20,000 used in the previous E.D.P. for estimating the labour supply. For the purpose of this Programme two estimates will be made of the supply of labour, based on the assumption of a net immigration level of 20,000 persons per annum, in the one case, and 30,000 persons per annum, in the other.

87. The population estimates for the programming period, which are shown in Table 4.1, are based on the mid-year estimates of the Bureau of Statistics for the years 1961-1967 and on the population projections of the Bureau for the period 1965-1975. These projections of the Bureau of Statistics were adjusted to the actual population growth between 1961 and 1967 and to the higher immigration levels accepted for the purposes of the E.D.P.

88. While the White population increased between 1936 and 1960 by an average of 1.8 per cent per annum, its growth rate increased to an average of 2.25 per cent per annum over the six-year period 1961-1967. This high growth rate was mainly the result of the high immigration level during the past six years. South Africa gained an average of 4,200 immigrants net per annum during the fifties, but the level of immigration increased sharply after 1962, and in 1966 was as high as 38,000 persons. According to the estimates in Table 4.1 the White population will increase by 2.09 per cent per annum between 1967 and 1973 if a net immigration level of 20,000 persons is maintained, and by 2.36 per cent per annum if South Africa gains 30,000 immigrants (net) annually.

89. The total population having been estimated, it remains to be determined what part of the population will be available in the labour market. The economically active population includes all persons who are desirous to work, and therefore unemployed persons who are seeking work are also included. Mainly as a result of the longer time occupied by school, technical and university training, the economically active White males have decreased from 60 per cent to 55 per cent of the total White male population over the period 1936-1960. On the other hand, the economically active White females increased from 13.3 per cent of the White female population in 1936 to 19.1 per cent in 1960. The percentage for 1960 is still considerably lower than in countries such as the United Kingdom and the United States of America where between 25 and 30 per cent of the female population belong to the labour force.

90. In estimating the economically active population as reflected in Table 4.1, allowance has been made for the different trends found in the various groups, and the fact that a larger percentage of the immigrants than of the local population is economically active, has also been taken into account. For the total White population there is a small increase over the programming period in the percentage economically active persons, viz., from 37.19 per cent in 1967 to 37.43 per cent in 1973 assuming an average immigration level of 20,000 persons per annum, and to 37.51 per cent taking the net immigration level at 30,000 persons per annum. In total the economically active Whites therefore increase at a somewhat higher rate than the growth rate of the White population. If the net immigration is taken at 20,000 persons, the population growth is 2.09 per cent per annum, while the economically active Whites increase by 2.22 per cent per annum. At a net immigration level of 30,000 persons per annum the growth in the White population is 2.36 per cent per annum and the increase in the White labour force 2.5 per cent annually.

91. As a result of the problems experienced in the census surveys of the Bantu population the growth rate obtained for the non-White population varies considerably between the different census dates. This makes it difficult to project the non-White population growth. Between the population censuses of 1936 and 1960 the non-Whites increased by an average of 2.24 per cent per annum. According to the mid-year estimates of the Bureau of Statistics, the annual growth rate in the number of non-Whites between 1961 and 1967 was 2.39 per cent, and for the programming period the increase in the non-White population is estimated at an average of 2.42 per cent per annum.

92. In estimating the economically active non-White population it has been assumed, in accordance with the trend between the 1951 and the 1960 population census, that the economically active Coloured and Bantu males decrease as a percentage of the respective population groups, whereas this percentage increases in the case of the Indian males and the females of all the different non-White population groups. The result of these trends is that the economically active non-White population is expected to decline slightly from an estimated 35.10 per cent of the non-White population in 1967 to 35 per cent in 1973. The non-White labour force therefore increases at a somewhat slower rate (2.37 per cent per annum) than the non-White population (2.42 per cent per annum).

93. It may be mentioned that at an immigration rate of 30,000 persons the White labour force will increase more rapidly than the non-White labour force, i.e. by 2.5 per cent per annum

as against 2.37 per cent per annum. Although the natural growth rate of the Whites is lower than that of the non-Whites, the immigration of Whites results in a more rapid increase in the White labour force than in the non-White labour force.

94. It will be observed that the estimates of the economically active population are the same for the different economic growth rates. This means that the rate of economic growth is not expected to influence the growth of the population or the labour force over the medium term.

Table 4.1: The supply of and demand for labour[1)]
('000)

	1967	5% Growth rate		5½% Growth rate		6% Growth rate	
		1968	1973	1968	1973	1968	1973
SUPPLY OF LABOUR							
1. With 20,000 immigrants p.a.							
a) Total population	18,735	19,173	21,541	19,173	21,541	19,173	21,541
i) Whites	3,565	3,637	4,034	3,637	4,034	3,637	4,034
ii) Non-Whites	15,170	15,536	17,507	15,536	17,507	15,536	17,507
b) Economically active population: Total	6,650	6,804	7,640	6,804	7,640	6,804	7,640
Whites	1,325	1,354	1,512	1,354	1,512	1,354	1,512
Non-Whites	5,325	5,450	6,128	5,450	6,128	5,450	6,128
2. With 30,000 immigrants p.a.							
a) Total population	18,733	19,183	21,605	19,183	21,605	19,183	21,605
i) Whites	3,563	3,647	4,098	3,647	4,098	3,647	4,098
ii) Non-Whites	15,170	15,536	17,507	15,536	17,507	15,536	17,507
b) Economically active population: Total	6,650	6,808	7,665	6,808	7,665	6,808	7,665
Whites	1,325	1,358	1,537	1,358	1,537	1,358	1,537
Non-Whites	5,325	5,450	6,128	5,450	6,128	5,450	6,128
DEMAND FOR LABOUR							
Total all races	6,442	6,586	7,364	6,603	7,485	6,619	7,633
Agriculture	1,912	1,937	2,065	1,937	2,065	1,937	2,091
Mining	605	602	585	602	587	603	595
Secondary industries	1,313	1,359	1,615	1,369	1,686	1,376	1,745
Service industries	2,612	2,688	3,099	2,695	3,147	2,703	3,202
Total Whites	1,315	1,346	1,504	1,351	1,540	1,356	1,577
Agriculture	116	116	113	116	113	116	113
Mining	60	60	58	60	58	60	58
Secondary industries	320	330	382	332	400	334	417
Service industries	819	840	951	843	969	846	989
Non-Whites	5,127	5,240	5,855	5,252	5,945	5,263	6,030
Agriculture	1,796	1,821	1,952	1,821	1,952	1,821	1,952
Mining	545	542	527	542	529	543	537
Secondary industries	993	1,029	1,233	1,037	1,286	1,042	1,328
Service industries	1,793	1,848	2,143	1,852	2,178	1,857	2,213
DIFFERENCE BETWEEN SUPPLY AND DEMAND							
1. With 20,000 immigrants p.a.							
i) Whites	10	8	8	4	-28	-2	-65
ii) Non-Whites	198	210	268	198	183	187	98
2. With 30,000 immigrants p.a.							
i) Whites	10	17	33	8	-3	2	-40
ii) Non-Whites	198	210	268	198	183	187	98
INCREASE IN PRODUCTIVITY, PERCENTAGE P.A.			2.6		2.8		3.0

1) These figures apply to the Republic only.

2. The demand for labour

95. The figures for 1967 shown under the heading "demand for labour" represent the employment in that specific year. To the extent that labour shortages did exist, the figures are an under-estimation of the demand for labour. Just as there will always be a degree of unemployment, so a certain number of vacancies or a shortage of labour, can also be regarded as normal. Unfortunately adequate statistics are not available for a proper analysis of this aspect and therefore the actual employment in the base year is regarded as the demand for labour. It is true, however, that the relevant G.D.P. in the base year was attained with the existing labour force, notwithstanding the shortages of labour. Had the vacancies been filled, the G.D.P. would have been higher. The demand for labour as reflected in the employment figures for the base year, is therefore the pattern of demand uniquely associated with the relevant G.D.P.

96. The demand for labour in the four industries (agriculture, forestry and fishing; mining; secondary industry; and the services industry) has been compiled from the employment figures of the relevant sectors included in the respective industries. The employment in the 33 sectors distinguished for the purposes of the E.D.P. was with a few exceptions, e.g., agriculture and certain service industries, calculated for the base year on the basis of data published by the Bureau of Statistics. The estimates of the demand for labour for the programming period were made on the basis of the production increases in the 33 sectors and the expected increases in labour productivity. The increase in labour productivity is measured here as the growth in the real G.D.P. per worker. In estimating the demand for labour it was assumed that the labour required for the expansion of production will be available. Since higher growth rates of the G.D.P. go hand in hand with a higher level of investment, and since labour productivity is influenced inter alia by the extent of capital formation, it is accepted that the increase in productivity for the $5\frac{1}{2}$ per cent growth rate will be somewhat higher than for the 5 per cent growth rate, and the productivity increase for the 6 per cent growth rate will again be slightly higher than that of the other growth rates.[1)]

97. As in the case of the supply of labour, the demand for labour is subdivided into the demand for White labour and non-White labour respectively. In dividing the total demand for labour between Whites and non-Whites due consideration has been given to the historical trends in the racial composition in individual sectors. At this stage it was not yet possible to determine the effect of the Physical Planning and Utilisation of Resources Act on the composition of the labour force in the manufacturing industry. This Act places no limitation on the employment of Coloureds and Asiatics, while manufacturing industry outside the controlled areas is not limited in respect of the numbers of Bantu workers. In the proclaimed areas manufacturing industry is, under certain

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1) In practice, where there is a shortage of labour, it is possible that productivity will decline if the economy expands at a high rate. Since it is assumed for the calculations of the demand for labour that sufficient labour will be available, it appears to be justified, however, to accept that a higher productivity could be realised at a higher growth rate.

circumstances, allowed to employ additional Bantu. Within the framework of the Act it is therefore still possible for the employment of the non-Whites in manufacturing industry to increase, and in this Programme it has been assumed that secondary industry, as in recent years, will be an important source of employment opportunities for the non-Whites, but no attention has been given to the geographical areas where employment will take place.

98. After these general remarks the estimates of the demand for labour can be discussed for each of the industries. To place the changes as regards labour, in perspective they are compared with the growth of production in the respective industries; the developments in the industries are discussed in Chapter VI.

(a) Agriculture, forestry and fishing

99. It is general tendency that as a country develops, a smaller part of its labour force is employed in agriculture. Whereas 23.6 per cent of the economically active White population was employed in this industry in 1936, only 10.3 per cent of the White labour force was employed in agriculture in 1960. Owing to the lack of statistics it is difficult to calculate employment in agriculture in the base year of the programming period. On the basis of the 1960 population census of the Bureau of Statistics and information on those tax payers with agriculture as their main source of income, as supplied in the annual report of the Department of Inland Revenue, it is estimated that in 1967 approximately 113,000 Whites, or 8.7 per cent of the White labour force, were economically active in the agricultural industry. On the basis of information in the 1951 and 1960 population censuses it was estimated in the previous E.D.P.'s that the number of Whites employed in agriculture decreased at the rate of 2.15 per cent per annum. According to information on the number of taxpayers with agriculture as their main source of income, it appears that the number of Whites employed in agriculture has declined at a rate of 0.4 per cent per annum since the last population census. For the present E.D.P. it is assumed that the number of Whites employed in agriculture during the programming period will decline at a rate of 0.4 per cent per annum. If this should prove correct only 7.7 per cent of the economically active Whites will be employed in agriculture by 1973. In countries like the Netherlands, Argentina, Australia and Canada, between 10 and 20 per cent of the economically active population is employed in agriculture, and in the United States of America 6.3 per cent.

100. In so far as the non-Whites are concerned, projection is further complicated by the large numbers of Bantu who are employed in the subsistence part of the agricultural sector of the economy, as well as by the fluctuations in the number of seasonal workers on farms of Whites. In general, it may be observed that the continued mechanisation on farms of Whites, the more efficient use of labour, and the rationalisation of agriculture in the Bantu homelands will, in all probability, give rise to a decrease in the demand for non-White labour in agriculture. Between the 1951 and 1960 population censuses, however, the non-Whites employed in agriculture increased at an average rate of 1.53 per cent per annum and for the programming period an increase of 1.4 per cent per annum is allowed for. Although the number of non-Whites employed in agriculture is expected to increase further during the programming period, the relative importance of this industry as a source of employment for the non-Whites will decline. Whereas 33.7 per cent of the economically active non-Whites were employed in agriculture in 1967, this percentage will reach 31.8 per

cent in 1973.

101. Although the production of agriculture is influenced by the alternative growth rates, it is assumed that the demand for labour will not change as a result of the increased production accompanying the higher growth rates. In total the labour in this industry increases by 1.3 per cent per annum, and on the basis of the growth in the volume of agricultural production, this increase in labour implies that the output per worker in agriculture will increase by 1.9, 2.1 and 2.5 per cent per annum for the 5, 5½ and 6 per cent growth rates respectively.

(b) Mining

102. Whereas employment opportunities in the mining industry increased fairly rapidly during the fifties, when employment in this industry increased on average by 2.1 per cent per annum, employment in the mining industry is expected to decrease during the progtamming period. Since 1961 employment in the gold mining sector has been declining, and this tendency will become more marked during the programming period owing to the small increase expected in the output of gold should the gold price remain unchanged. Although employment in the other mining sectors is increasing, these increases are smaller than the decline in employment in the gold mining sector, so that in total the demand for labour during the programming period will decline by an average of 0.6, 0.5 and 0.3 per cent per annum at growth rates of 5, 5½ and 6 per cent respectively. This small decline which is foreseen in the demand for labour in mining applies to both the White and non-White workers. The number of Whites employed in mining is expected to decrease from 60,000 persons in 1967 to 58,000 persons in 1973, or at 0.7 per cent per annum. The number of non-Whites will decrease at a somewhat slower rate, viz. at 0.5 per cent per annum for the 5½ per cent growth rate. These developments as regards labour imply that the productivity in these industries will increase by 3.2 per cent for the 5 per cent growth rate and by 3.3 per cent for the 5½ and 6 per cent growth rates.

103. It will be observed that the demand for labour in those two industries which employ the largest number of non-Whites, in relation to their total labour force viz. agriculture and mining, increases at the lowest rate or even declines absolutely. These two industries provide employment for 44 per cent of the economically active non-Whites and for only 13 per cent of the White labour force. It follows from the tendencies described above that the total demand for non-White labour increases relatively slowly as compared with the demand for White labour.

(c) Secondary industry

104. Secondary industry is not only the fastest growing industry, but is also the industry in which employment is growing most rapidly. During the six-year period 1961-1967 employment in secondary industry increased by as much as 66.5 per cent or at an average of 8.9 per cent per annum. For the programming period such a rapid expansion is not envisaged, firstly because secondary industry is not expected to maintain the same growth rate as during the previous 6 years (9.3 per cent per annum) and secondly, because provision has been made for a larger increase in the productivity per worker than was achieved by this industry during the previous 6 years,

when the output per worker increased by only 0.4 per cent per annum.

105. According to the estimates in Table 4.1 total employment in secondary industry will increase by 3.5, 4.3 and 4.9 per cent per annum for the 5, 5½ and 6 per cent growth rates in the real G.D.P. respectively. If labour is freely available and these increases in employment are to be attained, the real contribution to the G.D.P. per worker in this industry must increase by 2.4, 2.5 and 2.6 per cent per annum for the 5, 5½ and 6 per cent growth rates respectively.

106. The demand for White labour in secondary industry increases at a slower rate than the total demand for labour. At the 5½ per cent growth rate in the real G.D.P., for example, the employment of Whites in this industry will increase on average by 3.8 per cent per annum as compared with an increase in total employment of 4.3 per cent per annum in this industry. If the economy expands at 5½ per cent, implying a growth rate of 6.8 per cent per annum for secondary industry, then this industry will require approximately 293,000 additional non-White workers over the programming period to make possible the expansion of production. This amounts to a growth rate of 4.4 per cent per annum. While approximately 18.5 per cent of the economically active non-Whites were employed in secondary industry in 1967, this industry will employ almost 21 per cent of the non-White labour force in 1973.

(d) Services industry

107. The services is the larges employer of all industries. It is estimated that approximately 39 per cent of the economically active population was employed by this industry in 1967. Although employment in the services industry increases relatively rapidly, the rate of expansion is slower than that in secondary industry. Over the 6-year period 1961-1967 it is estimated that employment in this industry has increased by 4.3 per cent per annum. For the programming period the growth in the demand for labour in the services industry is set at 2.9, 3.2 and 3.6 per cent per annum for the 5, 5½ and 6 per cent growth rates respectively. On the basis of the growth in the real G.D.P. of this industry the above increases in labour require that productivity must increase by 2.4, 2.6 and 2.7 per cent per annum for the 5, 5½ and 6 per cent growth rates respectively.

108. This industry employs relatively the largest number of Whites and in 1967 approximately 31 per cent of its workers were Whites. The demand for White labour, at the 5½ per cent growth rate in the real G.D.P. increases at a somewhat lower rate than that for non-Whites, viz. at 2.8 per cent as against 3.3 per cent.

(e) The economy as a whole

109. The result of the developments in the various industries discussed above is that the total demand for labour over the six-year period 1967-1973 will increase by 2.3, 2.6 and 2.9 per cent per annum if the economy grows at 5, 5½ or 6 per cent respectively. These increase in employment will require that productivity in the economy as a whole must increase by 2.6, 2.8 and 3.0 per cent per annum for the 5, 5½ and 6 per cent growth rates respectively.

110. The demand for White labour at the 5 per cent over-all growth rate increases more or less at the same rate as the supply of labour if the net immigration level is maintained at an average of 20,000 persons per annum. The difference between the supply of and demand for labour, i.e. the unemployed and unclassified persons in the labour force, declines from 10,000 persons in 1967 to 8,000 in 1973 if the average economic growth rate amounts to 5 per cent, and if South Africa achieves a net gain of 20,000 immigrants per annum. Under these circumstances the conditions that prevailed on the labour market in 1967 as far as the Whites are concerned, will more or less be maintained over the programming period.

111. The demand for White labour will increase more slowly than the supply if the economy expands at 5 per cent and if South Africa at the same time obtains 30,000 immigrants per annum net. On the basis of this assumption the shortage of White labour which is now experienced, will disappear, and the unemployed and unclassified Whites will increase from 10,000 in 1967 to 33,000 in 1973. If South Africa therefore succeeds in obtaining 30,000 immigrants net per annum, the growth potential of the economy will be higher than 5 per cent per annum as far as the availability of White labour is concerned.

112. In so far as non-White labour is concerned, the demand will increase at a slower rate than the supply at an overall growth rate of 5 per cent per annum in the real G.D.P. Consequently, the unemployed and the unclassified non-White labour will increase from an estimated 198,000 in 1967 to 268,000 in 1973.

113. If the growth in the G.D.P. amounts to $5\frac{1}{2}$ per cent per annum the demand for White labour will increase by 125,000 persons over the programming period, according to the estimates in Table 4.1. This increase is 38,000 persons more than the growth in the supply of labour following from the assumption of a net gain of 20,000 immigrants per annum. The unemployed and unclassified persons will, according to these calculations, change from 10,000 in 1967 to an absolute shortage of 28,000 in 1973. It can be concluded that the shortage on the White labour market which was experienced in 1967, will increase to the above extent if the economy expands at $5\frac{1}{2}$ per cent and a net immigration level of 20,000 persons per annum is maintained during the programming period.

114. If the immigration level is maintained at an average of 30,000 persons per annum, as during the period 1963-1967, conditions on the labour market will improve greatly. The demand for White labour will then exceed the supply by only 3,000 persons in 1973, according to the estimates in Table 4.1. The estimated shortage will be alleviated to the extent that the measures for increasing the supply of skilled labour, which were discussed in the Economic Development Programme for 1964-1969[1] and to which further reference will be made in Chapter VIII of this document, prove to be effective. Although the situation on the White labour market will remain tight over the programming period, it would appear that a growth rate of $5\frac{1}{2}$ per cent in the real G.D.P.

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1) Department of Planning: The Economic Development Programme of South Africa, 1964-1969. Op. cit., p.p. 76-78.

can be maintained if a net immigration level of 30,000 persons per annum can be obtained.[1)]

115. The demand for non-White labour will also increase more rapidly than the supply at a growth rate of 5½ per cent, with the result that the unemployed and the unclassified non-White workers will decline from an estimated 198,000 in 1967 to 183,000 in 1973.

116. In conclusion the implications of the 6 per cent growth rate for the demand and supply of labour are discussed. The demand for White labour at this growth rate increases much more rapidly than the supply. If the net immigration level is 20,000 persons per annum, it is estimated that there will be an absolute shortage of 65,000 White workers in 1973, and if the immigration level is 30,000 persons per annum, this shortage will amount to 40,000 White workers. Shortages of White workers which existed in the base year will therefore be aggravated to the extent indicated by the abovementioned figures if a growth rate of 6 per cent per annum is pursued at the assumed immigration levels. In the case of the non-Whites too the demand for labour will increase more rapidly than its supply at this growth rate, and the number of unemployed and unclassified non-Whites is expected to decrease by 100,000 persons during the programming period.

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1) It should be borne in mind that South West Africa is not included in this analysis. The total shortage for the Republic and South West Africa will in all probability be higher than that shown by the above figure.

CHAPTER V

FINANCIAL AND MONETARY DEVELOPMENTS

117. In this chapter two aspects are considered: firstly, projections of government finances are made, and secondly, an attempt is made to determine whether the monetary developments accompanying the respective growth rates will be such that the monetary and banking situation will not exert an independent influence on the development process.

1. Government Finances

118. As is generally known, the development of the items in the government accounts is to a large extent determined by political and other autonomous factors, which limit the value of long-term projections of these items. Nevertheless it is considered worthwhile to make an analysis of these items, even if merely to show the mutual relationship with the other components in the E.D.P., and to analyse further the implications of these projections. The realisation of the projected levels of the general government's expenditure and income items shown in Table D at the end of this document and summarised in Table 5.1, is not a pre-requisite for the attainment of the general growth rates of 5, 5½ and 6 per cent per annum, in the sense that they are not targets. In the tables a distinction is made between current income and expenditure in accordance with the concepts used in the national accounts, which differ from those used in the fiscal budgets. The government accounts are expressed in terms of constant prices, and as in the case of all the other analyses, 1967 prices were used for this purpose.

Table 5.1: Current income and expenditure of general government, 1967 - 1973
(R million)

	1967	5% Growth rate		5½% Growth rate		6% Growth rate	
		1968	1973	1968	1973	1968	1973
INCOME							
Tax receipts[1]	1,560	1,590	2,010	1,620	2,100	1,640	2,175
Income from property	225	235	300	235	310	235	320
Total	1,785	1,825	2,310	1,855	2,410	1,875	2,495
EXPENDITURE							
1. Goods and services	1,110	1,160	1,550	1,170	1,560	1,180	1,580
(a) General services	450	475	625	480	630	480	635
(b) Community services	120	125	160	130	165	130	170
(c) Social services	490	510	695	510	695	520	705
(d) Economic services	50	50	70	50	70	50	70
2. Net transfer payments	155	160	180	165	185	165	190
3. Total current expenditure	1,265	1,320	1,730	1,335	1,745	1,345	1,770
4. Current surplus	520	505	580	520	665	530	725

1) After deduction of subsidies.

119. Table 5.1 distinguishes, on the income side, between tax receipts and income from property. Tax receipts can further be subdivided between direct and indirect taxes, from which subsidies paid by the state are deducted for the purposes of this analysis. Since the structural changes that may possibly follow from the implementation of the recommendations of the Commission of Enquiry into the Fiscal and Monetary Policy in South Africa cannot be foreseen total tax receipts are not subdivided in this E.D.P. according to the revenue yielded by the respective taxes.

120. After a gradual rise to 16 per cent in the late fifties, income from taxation (minus subsidies) as a percentage of the national income has since 1961 increased more rapidly, and in 1967 taxation (minus subsidies) constituted 18.7 per cent of the national income at market prices. This high level was partly influenced by the high level of economic activity in the base year. For the 5 per cent growth rate the "normal" level of taxation (minus subsidies) is put at 18.2 per cent of the national income and to allow for the progression in income tax rates, a small increase in this percentage is projected, i.e. to 18.3 per cent in 1973. For the other growth alternatives a higher rate of taxation is used. In the case of the 6 per cent growth rate, for example, taxation will amount to 18.8 per cent of the national income in 1973.

121. Income from property, from which the interest on public debt is deducted in accordance with national accounting concepts, represents the surpluses of government enterprises, dividends received, etc. and will, according to the estimates, increase proportionately with the growth of the economy. On the basis of the foregoing assumptions, total income of the general government will increase by an average of 4.4, 5.2 and 5.8 per cent per annum for the 5, 5½ and 6 per cent growth rates respectively. Although the growth rate of government income is put at a lower level than that of the G.D.P., it equals the rate of expansion of the national income for the 5½ per cent growth rate, while for the 6 per cent growth rate it grows somewhat faster than the national income, which increases by 5.7 per cent per annum at this growth alternative.

122. The course of the total current spending on goods and services of the general government has already been discussed in Chapter II. In this section the total expenditure is subdivided according to the functions undertaken by the general government. The functional classification of the current expenditure calculated for the base year is based on information furnished by the Bureau of Statistics. Although the classification is reasonably dependable for some institutions, e.g. the government departments of the Central Government, the classification for other institutions is based on preliminary data. The classification for 1967, the base year, as well as for the other years, which is based on that for 1967, should therefore be regarded merely as a preliminary indication of the functional classification of government expenditure on goods and services.

123. According to Table 5.1 the expenditure on general services, which includes the expenditure in respect of general administration, administration of justice, defence and inland security, constituted almost 40 per cent of the current expenditure on goods and services in 1967. In the process of economic growth this type of expenditure normally increases at a slower rate than the growth of the national income, but in the case of South Africa it increased rapidly in recent years, partly as a result of defence expenditure. For the programming period the growth in expenditure on general services is put at 5.6 per cent per annum for the 5 per cent growth rate, which

is more or less the same as the growth rate in the total government expenditure on goods and services. The course of this item is to a large extent influenced by defence expenditure. The expenditure on general services for the other growth rates is somewhat higher in 1973 than for the 5 per cent growth rate.

124. Community services include the current expenditure on the maintenance of roads and streets, sanitation, research, etc. It has been assumed that the expenditure on these services will increase at a somewhat faster rate than the growth of the national income. For example, the expenditure on community services increases by 5.4 per cent per annum for the 5½ per cent growth rate, whereas the growth of the national income for this growth alternative is 5.2 per cent per annum. Since total current expenditure on goods and services increases appreciably faster, the relative share of community services declines from 10.8 per cent of the total current expenditure in 1967 to 10.5 per cent in 1973.

125. Social services comprise education, health, housing, social security, etc., and in 1967 44.2 per cent of the general government's current expenditure was appropriated for the provision of these services. In the process of economic growth expenditure on these services normally increases faster than the growth in the national income. For the 5 and 5½ per cent growth rates provision was made for a 6 per cent growth in the expenditure on social services.

126. The expenditure on economic services includes expenditure for the promotion of the respective industries, e.g. agriculture, mining, manufacturing, etc. The expenditure which was directly appropriated to this item in 1967 amounted to only R50 million, which is equal to 4.5 per cent of the total current expenditure on goods and services. It is assumed that the expenditure on this item will increase at the same rate as the growth in community services over the programming period. Owing to lack of information in respect of the relationship between expenditure on economic services and the development of the respective industries, it was assumed that the expenditure under this item will increase at the same rate as that of community services over the programming period.

127. It should again be pointed out that the course and composition of government expenditure are influenced by political and other exogenous factors. The foregoing is an exposition of the expected course of government expenditure according to the four broad functional classes, on the assumption that extraordinary factors will not materially influence this during the programming period.

128. Apart from the expenditure on goods and services, the item net transfer payments is distinguished on the expenditure side of Table 5.1. This item consists mainly of pension payments and donations to non-profit seeking institutions. In 1967 this item amounted to R155 million and for 1973 it is put at R180 million, R185 million and R190 million for the 5, 5½ and 6 per cent growth rates respectively.

129. When total current expenditure is deducted from current income, the surplus or saving of the general government is arrived at. In 1967 saving of the general government amounted to 32 per cent of the total net saving. Since the current expenditure increases faster than the current income at the 5 per cent growth rate, only a small increase in the saving of the general govern-

ment results. The share of saving of the general government in total saving declines to 30 per cent in 1973 at this growth rate. If the G.D.P. expands at 5½ per cent per annum the current income as well as the calculated surplus of the general government increases more rapidly. It can be pointed out that these surpluses are required for financing part of the capital expenditure of the government sector, which in 1967 amounted to R786 million, and are therefore not available for tax concessions.

2. Monetary developments

130. Without a sufficient supply of money and near money the economy cannot reach the growth rate that it is potentially able to attain. On the other hand an excessively high level of the money supply is in itself no guarantee for economic growth. In fact an excessively large money supply can promote inflation and impede sound economic growth. An adequate money supply is thus a necessary although not a sufficient condition for economic growth, since other factors, such as business confidence, play a decisive role. Within certain limits there is an ideal money supply in relation to the national income, depending on the velocity of circulation and on other circumstances. In order not to impede the process of economic growth it is desirable to keep the money supply within these limits. As a result of the indirect and complicated relationship between the money supply and the national income, it is difficult to determine the desirable level of the money supply, considering that this level can fluctuate from time to time.

131. In this section the "desired" level of the money supply is firs discussed and then the possibility of making it available is analysed. The money supply that is "required" is arrived at by means of the income velocity of money, which shows the relationship between the national income on the one har t, and the money supply on the other. If the income velocity and the national income are known, the "required" supply of money and near money can then be estimated.

132. In the previous E.D.P. for the period 1966-1971 reference was made to the changing monetary and banking situation that followed the commencement of the new Banking Act of 1965. It was pointed out that on the basis of the past relationship between the supply of money and near-money, on the one hand, and the G.D.P., on the other hand, and in view of the new and generally limited concept of money and near-money,[1] the desirable supply of money and near-money is set at 26 per cent of the G.D.P., which implies an income velocity of approximately 3.8 per cent. This ratio appears to be still applicable, and it is therefore employed in this programme to estimate the "desirable" supply of money and near money.

133. The average supply of money and near-money required on the basis of this ratio for the financing of the G.D.P. at market prices is shown in Table 5.2.[2] Table F at the end of

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1) See De Kock, Gerhard, "Money, Near-money and the Monetary Bank Sector", Quarterly Bulletin of the South African Reserve Bank, March 1966.

2) Unlike the analysis in the other chapters the monetary analysis has to be made at current prices because the economic activity is financed at current prices.

this document contains similar information for each of the respective years. As a result of the seasonal fluctuations in the demand for money and on account of the growth in the G.D.P. during the year, the supply of money and near-money need not be equal to the level shown in the table at any specific point of time. It may be desirable to depart from the supply of money and near-money shown for specific years, depending on particular circumstances.

134. On the basis of the assumptions mentioned the "desirable" level of the supply of money and near-money amounts to an average of R2,660 million in 1968 for the 5½ per cent growth alternative, which equals the average supply of money and near-money in 1967. At the end of 1967 and the beginning of 1968 the supply of money and near-money actually amounted to R2,872 million, and subsequently it increased further to approximately R3,000 million at the end of June 1968. According to these developments it is clear that the monetary situation during the base year of the programming period was conducive to overspending. As a result monetary control measures were introduced from time to time with a view to counteracting the surplus liquidity and the accompanying inflationary tendency.

Table 5.2: The demand for and supply of money and near-money
(R million)

	1967	5% Growth rate		5½% Growth rate		6% Growth rate	
		1968	1973	1968	1973	1968	1973
DEMAND							
G.D.P. at current prices	9,517	10,190	14,360	10,240	14,770	10,290	15,200
"Required" money supply[1]	2,660[2]	2,650	3,730	2,660	3,840	2,680	3,950
Annual changes in the "required" money supply		-10	240	-	270	20	290
SUPPLY							
Changes in the gold and foreign exchange reserves[3]		90	180	10	50	-100	20
Additional supply of money "required"		-100	60	-10	220	120	270

1) The figures shown include the money as well as the near-money supply.

2) Average of money and near-money supply in 1967.

3) The figures represent the anticipated changes in the money supply following from the projected balances on the current account of the balance of payments.

135. In the base year and during the first year of the present programming period the monetary situation was characterised by surplus liquidity in the economy. On the assumption that the money and near-money supply will be reduced in 1968 to a "desirable" level, Table F shows that the supply of money and near-money for the 5½ per cent growth alternative will increase after 1968 by amounts fluctuating between R210 million in 1969 and R270 million in 1973. For the 5 per cent growth rate these increases are somewhat lower, while it is higher for the 6 per cent growth rate. For the programming period as a whole the increase in the "desirable" supply of money above

the average level of 1967 amounts to R1,070 million, R1,180 million and R1,290 million for the 5, 5½ and 6 per cent growth rates respectively.

136. The availability of the additional liquidity can be discussed next. There are various factors that influence the supply of money and near-money, e.g. the changes in the country's gold and foreign exchange reserves, the claims of the monetary banking sector against the private and government sector, and the government deposits with the monetary banking sector. Only the effect on the supply of money and near-money of the changes in the gold and foreign exchange reserves following from the projected development of the current account of the balance of payments, as determined in Chapter III, is taken into account for the purposes of this analysis.[1)]

137. If the course of the balance on the current account of the balance of payments is in accordance with the projection in Chapter III, and if it is assumed that the capital account of the balance of payments will be neutral during the programming period, then the gold and foreign exchange reserves will increase by R760 million over the programming period for the 5 per cent growth rate, so that the total reserves will amount to R1,317 million by the end of 1973. On the basis of the increase in the gold and foreign exchange reserves the money supply, at this growth rate, can therefore increase by R760 million over the programming period, while an increase of R860 million above the level at the end of 1967 will be desirable. Since the money supply can increase by a multiple of the increase in the gold and foreign exchange reserves the liquidity requirements of the economy can be easily satisfied at this growth rate. In fact, the problem would be to reduce the liquidity, especially in the initial years of the programming period.

138. For the 5½ per cent growth rate the gold and foreign exchange reserves will increase by R130 million as a result of the balances on the current account of the balance of payments, whereas the expansion in the "desirable" money and near-money supply is put at R970 million above the end-1967 level. It has been mentioned that the monetary situation in 1967 and during the first year of the present programming period is characterised by surplus liquidity in the economy. If the other factors were to have no effect on the money supply, the level of the money and near-money supply required by 1970 for this growth rate is in fact equal to the actual level of the money and near-money supply reached by the middle of 1968. If it is considered that the monetary banks (excluding the Reserve Bank) had surplus liquid assets at their disposal during the base year as well as during the first year of the programming period, and that the money supply reached this level despite the credit ceiling which had been imposed on their power to create credit, it is clear that the monetary factor in the initial years will tend to have and expnasionary rather than a limiting effect on the growth process.

139. For a process of sound economic growth it is necessary that the money supply must be within certain limits, since it may be difficult to control the level of economic activity if the monetary demand should expand excessively. From a growth point of view it is thus necessary that the surplus liquidity in the economy must be mopped up, in spite of the need for additional

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1) The exclusion of the effect of the other factors on the money supply does not mean that the effect of these factors on the money supply will necessarily be insignificant. It is assumed that the monetary policy will be such that money supply will not be expanded by these methods.

liquidity that may arise two years hence. During most of 1968 the surplus liquidity was not activated, and did not disturb the balance achieved between demand and supply.

140. After the surplus liquidity in the economy has been drained off, the normal expansion in the supply of money and near-money resulting from the surplus on the current account of the balance of payments, will not be large enough to satisfy the increasing liquidity requirements of the economy. When this stage is reached interest rates may tend to increase and the monetary situation may then have a retarding effect on the growth rate if the money supply is not enlarged by one of the other factors mentioned above. If a need exists for credit, without the danger of inflation or of a deficit on current account of the balance of payments, it can be accepted that the monetary authorities will fulfil this need, in which case the growth rate will not be impeded as a result of insufficient liquidity.

141. The monetary developments for the 6 per cent growth rate correspond to a large extent to those discussed for the $5\frac{1}{2}$ per cent growth alternative. For the 6 per cent growth alternative, however, the current account of the balance of payments shows a deficit of R100 million during the initial years. To the extent that the balance of payments shows a deficit it would help to drain the surplus liquidity from the economy. Since a deficit on the current account of the balance of payments is anticipated for the whole programming period, except for the last year, at this growth alternative, the monetary factor will have a retarding effect on economic growth as soon as the surplus liquidity in the economy has been mopped up, unless the monetary authorities are prepared to ease the liquidity position of the financial institutions. As a rule, however, and depending on their evaluation of the current situation and the prospects, the monetary authorities would not be prepared to resort to compensatory money creation in the event of a continuous decline in the gold and foreign exchange reserves because this would lead to a further deterioration in the balance of payments. Thus unless South Africa experiences a net inflow of capital to neutralise the deficit on the current account of the balance of payments the maintenance of a 6 per cent growth rate appears to be unattainable.

CHAPTER VI

THE DEVELOPMENT OF THE INDUSTRIES

142. Where it was the purpose of the previous chapters to determine the growth potential on the basis of the available capital, foreign exchange, labour, etc., in this and the following chapter certain analyses of the growth process will be made. This chapter deals, firstly, with the changes in the production structure in the four main industries, viz., agriculture, forestry and fishing; mining; secondary industry; and the services industry, and secondly, with the capital formation in these industries.

1. The production structure

143. The changes in the production structure are discussed on the basis of the contributions of the industries to the G.D.P., which is valued at factor cost for the purposes of this analysis. These figures are shown in Table 6.1 which also shows the average growth rate of the respective industries over the programming period.

144. Since the demand for agricultural products increases with the expansion of the economy, it is expected that the production in agriculture will increase in accordance with the increasing demand. Thus, the growth rate of this industry is set at 3.4 per cent per annum if the economy as a whole expands at 5½ per cent per annum, while its growth rate amounts to 3.8 per cent for the 6 per cent overall growth rate. Although the absolute contribution of the agricultural sector to the G.D.P. increases over the programming period, the relative importance of this sector declines, so that in 1973 its contribution will amount to 10.5 per cent of the G.D.P. if the economy expands at 5½ per cent, as compared with 11.8 per cent in 1967. This development is consistent with the long-term trend. While agriculture's contribution to the G.D.P. amounted to 15.3 per cent in 1948-1949,[1)] its relative importance increased somewhat over the next 6-year period to 15.9 per cent of the G.D.P. in 1954-1955, but since then the percentual contribution of this sector to the G.D.P. declined to reach 11.8 per cent in 1967.

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1) In order to eliminate the effect of the short-term fluctuations in the percentual contributions, the percentages are based on the average of two years, viz., 1948 and 1949; 1954 and 1955; and 1960 and 1961.

Table 6.1: The contribution of the industries to the G.D.P.[1)]

	Contribution to the G.D.P. (R million) for:				Average growth rate if the G.D.P. growth is:		
	1967	1973					
		5% Growth rate	5½% Growth rate	6% Growth rate	5%	5½%	6%
Agriculture	1,019	1,241	1,250	1,276	3.2	3.5	3.8
Mining	981	1,144	1,153	1,172	2.6	2.7	3.0
Secondary industry	2,442	3,453	3,621	3,780	5.9	6.8	7.6
Services industry	4,223	5,776	5,919	6,060	5.3	5.7	6.2
PERCENTAGE CONTRIBUTION TO THE G.D.P.	1948/ 1949	1954/ 1955	1960/ 1961	1967	1973 for growth rates of:		
					5%	5½%	6%
Agriculture	15.3	15.9	12.3	11.8	10.7	10.5	10.4
Mining	10.8	11.2	13.5	11.3	9.8	9.7	9.5
Secondary industry	22.0	23.8	24.3	28.2	29.8	30.3	30.8
Services industry	51.9	49.1	49.8	48.7	49.7	49.5	49.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1) G.D.P. at factor cost for the Republic only.

145. The mining industry expands at a slow rate as compared with the other industries during the programming period. For the 5½ per cent growth rate, for example, the real contribution to the G.D.P. of this industry increases by 2.7 per cent per annum, the reason being that only a minimal expansion in gold output is foreseen during the programming period. While the relative importance of mining increased between 1948-1949 and 1960-1961 as a result of the rapid expansion in gold output, its percentual contribution to the G.D.P. has declined since 1960-1961 when it amounted to 13.5 per cent. In 1967 mining contributed 11.3 per cent to the G.D.P., and by 1973 its contribution is set at 9.7 per cent for the 5½ per cent growth rate.

146. Secondary industry will be the main source of economic growth during the programming period. The growth rate of this industry is set at 5.9 per cent, 6.8 per cent and 7.6 per cent per annum for the 5, 5½ and 6 per cent growth rates respectively. Indeed this industry expanded by an average of 9.3 per cent per annum during the previous six-year period of 1961-1967, but that was from a low level with surplus capacity, which is not a fair basis of comparison. If the growth of secondary industry is considered over a longer period, viz. the 22 years after World War II, an average growth rate of 7.4 per cent per annum is arrived at. The long-term growth rate for this industry was therefore higher than the 6.8 per cent set for the 5½ per cent growth rate in the real G.D.P., and is somewhat lower than the 7.6 per cent at which secondary industry must expand if the economy is to grow at 6 per cent.

147. On account of the rapid expansion in this industry its relative importance increases from 28.2 per cent in 1967 to 29.8, 30.3 and 30.8 per cent in 1973 for the 5, 5½ and 6 per cent growth rates respectively. This development is consistent with the long-term trend. Over the 12 years between 1948-1949 and 1960-1961 the percentual share of secondary industry in the G.D.P. increased gradually from 22.0 per cent to 24.3 per cent, or by 2.3 percentage points, while it increased to 28.2 per cent, or by 3.9 percentage points, over the next 6 years. The projected change during the programming period is not as large as that in the preceding six-year period.

148. The services industry will increase at a somewhat faster rate during the programming period than the corresponding growth in the economy. For example, if the economy should grow by 5½ per cent, the rate of expansion of the services industry is expected to be 5.7 per cent per annum. This development entails that the percentual contribution of the services industry will increase over the programming period. It increases, for example, from 48.7 per cent in 1967 to 49.6 per cent in 1973 for the 5½ per cent growth rate. As shown in table 6.1, the relative importance of this industry did not show a consistent tendency over the period 1948-49 to 1967. It would appear that the growth of the services industry is influenced by the growth of secondary industry. During the six-year period 1948-1949 to 1954-1955 secondary industry expanded at a rapid rate (7 per cent per annum), while the growth in the services industy was slower than that of the economy as a whole. During the next six years secondary industry expanded at a slower rate (5 per cent per annum), whereas the services industry expanded at a faster rate than the overall economic growth rate, with the result that its relative importance increased from 49.1 per cent in 1954-1955 to 49.8 per cent in 1960-1961. During the following six years its percentual contribution to the G.D.P. declined, while this period was characterised by the rapid growth of secondary industry. For the programming period it may be necessary for the services industry to catch up with the backlog that originated during the previous period of rapid growth of secondary industry.

2. Capital formation by industry

149. Although the total amount of investment in fixed assets for the economy as a whole has already been discussed in Chapter II, it is desirable to allocate this total to the respective industries. The net fixed investment for the various industries was first estimated, and then the depreciation for each industry was added to the net investment in order to arrive at the gross fixed investment. Table D at the end of this document shows the required net and gross fixed investment for the respective industries.

150. In the case of agriculture the gross fixed investment increases from R138 million in 1967 to R185 million, R190 million and R195 million in 1973 for the 5, 5½ and 6 per cent growth alternatives respectively. This represents an average annual increase of 5½ per cent for the 5½ per cent growth rate.

151. The gross fixed investment in the mining industry remains more or less the same during the programming years as for the base year. While the gross fixed investment amounted to R170 million in 1967, the projections for the 5, 5½ and 6 per cent growth alternatives are R170 million, R175 million and R180 million respectively. The main reason for this development is the

expected decline during the programming period in the investment of the gold mines, which is the largest component of capital formation in the mining industry. This calculation is based on the assumption that the gold price will remain constant and that no further new gold mines will be discovered.

152. In so far as the gross fixed investment in secondary industry is concerned, Table D, at the end of this document, shows that for the 5½ per cent growth alternative it will increased from R753 million in 1967 to R1,115 million in 1973, i.e. by 48.1 per cent. Despite this large increase in the gross investment in secondary industry, the net fixed investment in 1973, for the 5 and 5½ per cent growth alternatives, is set at a lower level than that of 1967. In the case of the 5½ per cent alternative the amount is R385 million in 1973 as against R393 million in 1967, the reason being that the investment in the base year was higher than the investment required for the realisation of the average growth rate projected for this industry during the programming period. In the case of the 6 per cent growth alternative net fixed investment will amount to R475 million in 1973, which is considerably higher than in the base year since the maintenance of this growth rate will, apart from the ever-growing replacement investment, also require large new investment.

153. In the case of the services industry gross fixed investment increases from R1,127 million in 1967 to R1,540 million, R1,650 million and R1,700 million in 1973 for the 5, 5½ and 6 per cent growth rates respectively. This represents an increase of 46.4 per cent during the programming period for the 5½ per cent growth alternative. The largest part of the total investment is undertaken by this industry. The gross fixed investment for this industry amounts, for example, to 52.7 per cent of total gross investment in 1973 for the 5½ per cent growth alternative.

CHAPTER VII

DEVELOPMENT OF THE INDIVIDUAL SECTORS

154. This chapter indicates the most probable sectoral growth patterns corresponding with growth rates of 5 per cent, 5½ per cent and 6 per cent per annum respectively in the real G.D.P. On the basis of the expected development in the demand and supply situations an attempt is made here to show the most probable production patterns. The reason for this analysis is two-fold. From this analysis it is possible, firstly, to deduce what the developments in certain key sectors, such as transport and communication, electricity supply, basic steel, coal, etc., should be in order to avoid bottle-necks in the process of economic growth. Secondly, it is hoped that the sectoral projections will be of value to private businessmen in the formulation of their own long-term plans.

155. Before the development of the different sectors is discussed, it is necessary to explain certain concepts used in the sectoral analysis. A brief explanation is also given of the way in which businessmen can make use of the sectoral projections. Since the presentation of the various sectors largely follows the same pattern, it is hardly necessary for readers who merely wish to gain a general impression of the sectoral part of the Programme, to read the description of each sector. Readers will be able to form an adequate picture by reading only this introduction (paragraphs 156 to 180) and the descriptions of a few sectors.

(a) General descriptions

156. Unlike the previous E.D.P. (1966-71), in which estimates were made for 34 sectors of the economy, this E.D.P. distinguishes only 33 sectors. Petroleum and coal products, previously shown as a separate sector, are now included in the miscellaneous manufacturing sector. The development of the petroleum and coal sector was still estimated separately and the preliminary calculations were discussed with the Sectoral Advisory Committee with a view to improving them. Owing to the strategic importance of petroleum to the Republic, however, it was decided that the results for this sector would not be published separately.

157. In classifying activities under the various sectors, the industrial classification of the statistical office of the United Nations was largely followed. The heading of each sector shows the International Standard Industrial Classification (I.S.I.C.) codes of the activities grouped together in that sector.[1)]

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1) For a complete description of the activities and products included under each code, reference can be made to the publication of the United Nationa Organization: Indexes to the International Standard Industrial Classification of all Economic Activities, Sales No. 1956, XVII 2.

158. For each sector the production, imports, exports, final demand, capital required for investment in fixed assets, and employment are shown for 1967 and 1973. In a separate table the domestic demand for the products of the sector is further subdivided according to the purchases of these products by the most important consumers. For most of the sectors the historical development and the expected growth of production over the programming period are shown graphically. For this purpose the indices of the physical volume of production for the period 1956/57 to 1967, as calculated by the Bureau of Statistics, are used. The annual average production indices for the years 1956/57 to 1967 were used in the calculation of a long-term growth rate for the different sectors. These curves are also shown on the graphs. The indices for the period 1967-1973 were obtained by applying the programming growth rates of the respective sectors, corresponding to a growth rate of 5½ per cent in the G.D.P., to their 1967 indices.

159. For most sectors no official statistics of the value of production in 1967 are as yet available. The production figures shown for 1967 are based on such short-term series as the index of the physical volume of production, and sales where available. The production figures shown for 1973 are estimated by means of an input-output model. The estimated changes in production derived from these calculations served as the basis for the determination of sectoral employment in 1973 and of the gross fixed capital formation required over the programming period.

160. Production is valued at producers' prices and excludes subsidies received and indirect taxes paid. Like all the other items, it is valued at constant 1967 prices. The difference between 1967 and 1973 therefor represents a change in the volume of production. The production figures for each sector comprise the outputs of all establishments within the specific sector. Where establishments use raw materials, semi-manufactured articles and services from other establishments in the same sector, the production figures for that sector will consequently include a certain amount of double counting. Double counting is a feature of most sectors, but for various reasons it occurs to a larger extent in some sectors (e.g. the motor vehicles, textiles, paper and paper products, and beverages and tobacco sectors) than in others. The activities of some establishments fall under more than one sector, but since it is sometimes difficult to separate the activities of an establishment, the Bureau of Statistics includes the total output of such an establishment in the sector under which the greatest part of its activities are classified. The production figures shown for each sector therefore to some extent include products that should have been classified under other sectors. These subsidiary activities are of relatively minor importance in most cases, but have here nevertheless been transfered, on the basis of the 1960/61 pattern, to those sectors where they belong.

161. The imports shown for each sector represent the importation of products allocated to this sector according to the international industrial classification. Table 7.26.1 (estimated development of the motor vehicle sector), for example, shows imports amounting to R214 million for 1967. This figure represents imports of motor vehicles and parts. The bulk of the imported parts is used by the motor vehicle sector itself, but a portion is also used by other sectors, such as the transport and motor repair sectors. Similarly, the other imported raw materials required by the motor vehicle sector are shown as imports of the sectors to which they belong. Tyres and tubes imported and used by the motor vehicle sector are included with rubber imports; the machinery required in car factories for producing components or assembling motor vehicles is

classified under imports of the machinery sector; and so forth.

162. The value of sectoral imports is found by adding the cost, insurance and freight payable on imports to the f.o.b. values shown in the official statistics. In addition, the sectoral imports have also been adjusted to exclude imported goods re-exported without being locally processed. For these two reasons the sectoral imports figures do not agree with the official import statistics. The total imports for 1973, as estimated in Chapter III, were allocated to the different sectors on the basis of the changes in the ratio of local production to imports of similar products over the programming period. Provision has thus been made for import replacement that may possibly occur.

173. From the discussions with the Sectoral Advisory Committees it appeared that local manufacturers are in most cases experiencing severe competition from abroad. The relaxation of import control was said to be the main factor responsible for this. The general opinion was that the projected 1973 level of imports for the producst of the different sectors would not be exceeded provided sufficient protection were given to the local manufacturers, especially in those cases where dumping[1)] occurred. In addition to this the manufacturers of final products, such as electrical machinery and equipment, clothing etc., pointed out that if the producers of raw materials were protected the manufacturers of the final product should qualify for a corresponding protection.

164. The sectoral exports, like all other items in the sectoral analysis, are valued at producer prices. Such prices exclude transport and other distribution costs that are necessary for the removal of exports to the harbours and other points of consignment. These distribution costs are therefore deducted from the f.o.b. values of the commodity exports published in the official statistics, and added to the exports of the two distribution sectors, namely commerce and transport. Total exports, as estimated for the balance of payments, were disaggregated into the products of the respective sectors on the basis of past trends and estimated future growth potentials. From a balance-of-payments point of view, the export figures for 1973 should be regarded as the minimum export levels which must be attained by all the sectors taken together. If the exports of a given sector therefore increase at a slower rate than has been estimated, the exports of another sector will have to increase more rapidly, or, alternatively, imports will have to rise at a slower rate in order to attain the same development on the current account of the balance of payments as estimated in Chapter III above.

165. Various sectors are to some extent dependent on the markets directly north of the Limpopo for an expansion of their exports, and in the calculation of the sectoral exports it was assumed that the political climate towards South Africa would not deteriorate.

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1) "Dumping" is the selling in South Africa at prices below the selling prices in the country of origin.

166. The domestic demand shown for the products of each sector comprises the demand for locally produced goods as well as imported products. Since the local production includes some double counting, the same double counting also occurs in the local demand. In the tables indicating the estimated development of the respective sectors, that part of the domestic demand arising from changes in inventories is shown separately. The demand for the products of a sector as a result of inventory changes shows the total change in stocks of the products of the sector concerned in all the sectors of the economy during the particular year; i.e. that part of a sector's products held by traders for instance, is included with the total inventories of the products of that sector. Changes in inventories are shown separately because, as in the previous E.D.P., inventories again showed an exceptionally large increase during the base year of this E.D.P. The demand arising from changes in inventories is therefore smaller in 1973 than in 1967 for most sectors because the 1973-figure represents a "normal" increase in inventories.

167. In a separate table the domestic demand for the products of each sector is further disaggregated according to the most important buyers of the products. Consumption by sectors, known as intermediate demand, is based on the total production of the respective sectors, on tl one hand, and on the consumption pattern of the sectors, on the other. The consumption patter the sectors is based on data for the year 1960/61, which have been adjusted to allow for possit changes. Since it is impossible to make provision for all such changes, the consumption patter is subject to a margin of error. Notwithstanding the measure of uncertainty attached to these estimates, it is felt that the distribution pattern for the respective sectors may be of value.

168. The final domestic demand shown in the table dealing with the distribution pattern for every sector includes private consumption expenditure, current expenditure by the general government on goods and services, gross fixed capital formation and changes in inventories.

169. The total private consumption expenditure for 1973 was divided among the various sectors on the basis of the pattern in 1967, the income elasticity of the demand for the products of the different sectors, and the increase in income per capita. The pattern of purchases of goods and services by public authorities in the past was used to estimate the future composition of this item. In the sectoral allocation of the expenditure of public authorities the expenditure of Defence on special imported equipment was left out of account in the base year as well as in 1973. These amounts were also excluded from the sectoral imports. The sectoral composition of gross fixed capital formation for 1973 was also estimated on the basis of the pattern in the past. The relation that existed between sectoral supply and stocks was used to estimate the changes in total stocks according to the products of the respective sectors. The final domestic demand was also valued at producers' prices.

170. For each sector the gross capital formation over the six-yearperiod 1967-1973 is shown. This reflects the amount invested in the maintenance and expansion of fixed assets, such as machinery, equipment, buildings and other construction works necessary for the estimated expansion in production.

171. The sectoral and total employment figures relate to the Republic only, in contrast with the figures for the other magnitude which also cover South West Africa. The estimates of

employment for 1973 represent the demand for labour required to achieve the indicated levels of production. The question whether or not the labour will in fact be available, is not considered in the sectoral analyses. The over-all analysis of the labour market (Chapter IV) deals with the total supply of, and demand for, labour.

172. In the assessment of the sectoral estimates, the Sectoral Advisory Committees assumed that the non-White workers required for the expansion in production, would on the whole not be limited by the provisions of the Physical Planning and Utilization of Resources Act. At this stage it cannot be ascertained what effect the Act will have on the geographical distribution of labour. The assurance was however given by both the Minister and the Secretary of Planning that the Act would be applied with caution in order not to impede normal growth.

173. Finally, the contribution per worker to the G.D.P. (Gross Domestic Product or value added) is shown for each sector. Although not completely identical with productivity, the changes in the contribution per worker to the G.D.P. do give an indication of the course of labour productivity in the various sectors.

174. With a view to improving the results of the sectoral analyses, the preliminary estimates for certain sectors were first discussed with the Sectoral Advisory Committees and Government departments. The Sectoral Advisory Committees consist of private businessmen who are active in the various sectors, and their practical knowledge proved invaluable in calculating the final sectoral estimates. At the time of the discussions it was unfortunately not yet possible to form Sectoral Advisory Committees for all the sectors. Those sectors in respect of which discussions actually did take place with the Sectoral Advisory Committees, Government departments or other institutions are indicated with an asterisk.(*)

(b) <u>Possible uses of the sectoral estimates</u>

175. Although the projections of the macro-economic magnitudes, such as the growth in the G.D.P., private consumption, etc., may in their own right be of use to businessmen in constructing their own development plans, it is felt that the sectoral projections may further increase the value of the E.D.P. to them.

176. The process of economic growth is characterised by differing growth rates in the various magnitudes, sectors and, particularly, the output of individual products. It is impossible to undertake a comprehensive study on the basis of products. Even where the analysis is conducted in terms of sectors for the economy as a whole, only a limited number can be distinguished, as is the case in the E.D.P. Owing to the limited number of sectors (33 in the case of the present E.D.P.), it is necessary to group together in each sector a large number of activities which are related but not necessarily homogeneous. If private businessmen wish to use the sectoral estimates, it is necessary for them to relate the developments of their own concerns to the sectoral developments indicated in the E.D.P. The method of associating the development of the individual firm with the sectoral development will depend upon the particular conditions peculiar to the industry. Only rough guidelines can be indicated here. Every case should be dealt with according to its own special circumstances.

177. A comparison between the historical growth of the types of products produced by a firm, on the one hand, and the growth of the sector to which the products concerned are allocated,[1)] on the ohter, may give an indication of the differences between the growth rates of the products produced by the firm, and that of the sector. On the basis of this difference in the growth between the products of the firm and that of the sector, and with due regard to special factors that may possibly influence the two growth rates, the probable rate of growth of the output of a particular firm can be deduced from that indicated in the E.D.P. for the sector as a whole.

178. Another method which could perhaps be used, is to deduce the future development in the demand for the products concerned with the aid of the consumption pattern given for the sector as a whole. By comparing his own sales pattern with the projected changes in that of the sector as a whole, the entrepreneur may form an idea of the potential expansion in his markets. If the major share of the production of a sector is used by private consumers (as for example in the clothing industry), or if the major share is destined for domestic investment (as is the case with the production of the construction industry), then these sectors are directly influenced by changes in private consumption expenditure and in domestic investment, respectively.

179. On the other hand, there are sectors, such as wood, basic chemicals and basic iron, which dispose of the major portion of their production to intermediate consumers. For these sectors the relationship between production and the final consumer is indirect, and the demand for their products can be determined only by examining their consumption patterns.

180. In the sectoral analysis an attempt is made to reconcile the total supply statistics, i.e. local production and imports, with the total demand statistics. These tables may consequently also be of statistical value. Since official statistics are not available in the form required for this purpose, estimates had to be made. Although the desirability of comparable figures in the successive E.D.P.'s is realised, it is at this stage often necessary to revise the basis of the estimates, with the result that the series in successive E.D.P.'s are not always comparable.

1. Agriculture, forestry and fishing* (I.S.I.C. 010, 020, 030 and 040)

181. This sector embraces the following activities: agricultural production, which can be divided into three main activities, viz. the production of field crops, horticultural crops and pastoral products; forestry and forestry products; fishing; and the rendering of agricultural, forestry and fishery services. Agriculture in White areas as well as agriculture in Bantu homelands are included here. Only the primary products, and no processed products, are classified

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1) The historical growth of the manufacturing sectors can be obtained with the aid of the index of the physical volume of production compiled by the Bureau of Statistics.

under this sector. Thus, cattle for slaughtering, for example, will be included here, but the product of the abbatoir, i.e. meat, is included under the processed foodstuffs sector.

182. Agriculture's contribution to the production of this sector is by far the most important and amounted to 95 per cent in 1967. Forestry and fishing contributed roughly equal proportions to the remainder of the production. The index of the volume of agricultural production for the period 1956/57 to 1973 is reflected in Figure 7.1. The observed data for the period 1956/57 to 1966/67 were calculated by the Division of Agricultural Marketing Research, and the projected indices from 1968 to 1973 have been determined by applying the growth rate for the sector applicable to a growth of $5\frac{1}{2}$ per cent in the G.D.P., to the 1956/57 index.

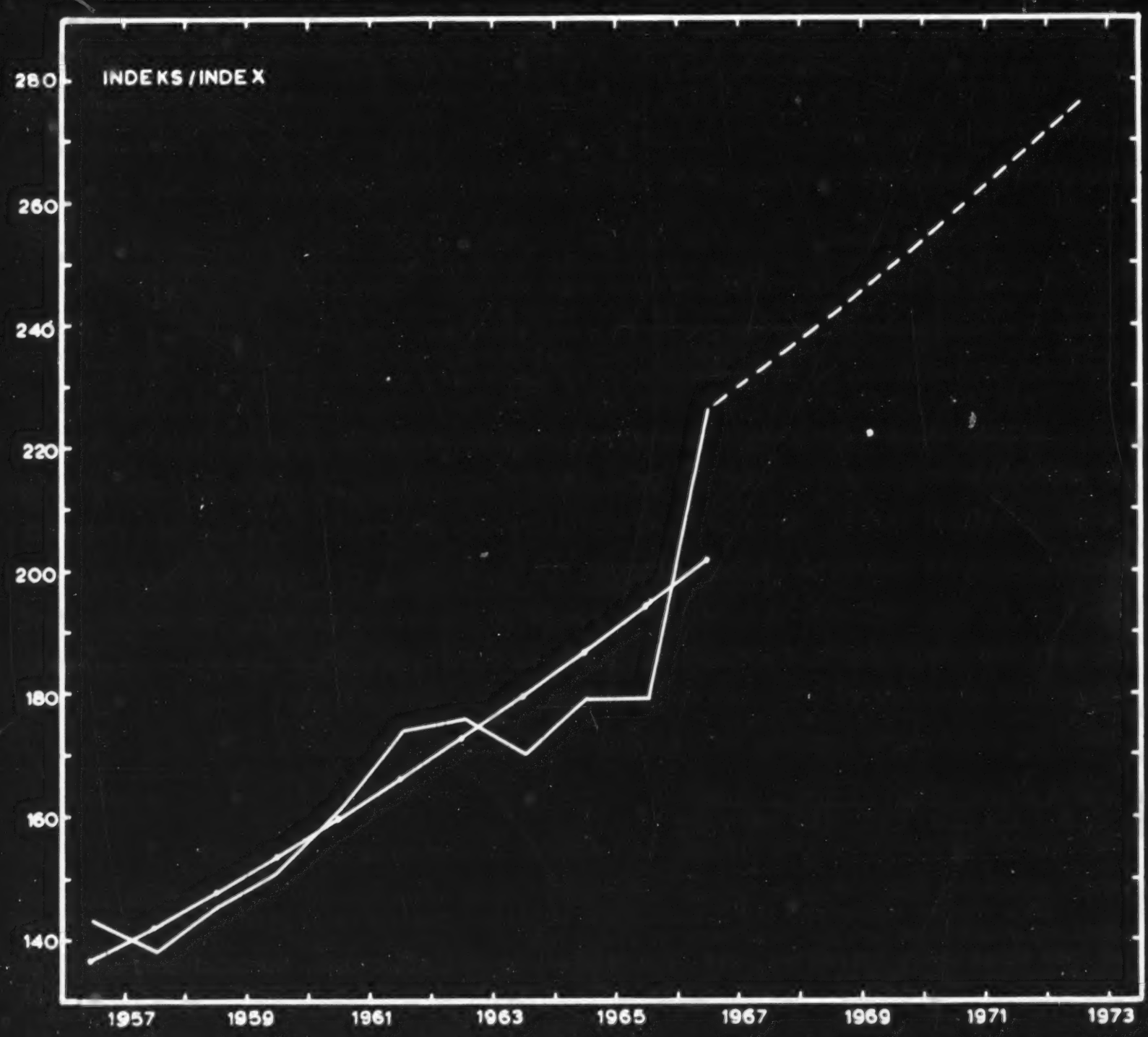

Fig. 7.1: Index of the physical volume of agricultural production
1947/48 - 1949/50 = 100

183. The long-term growth rate which has been calculated from the observed values for the period 1956/57 to 1966/67, is 4.0 per cent per annum. If a distinction is made between the cultivation of field crops, horticulture and animal husbandry, the long-term growth rates are 4.9 per cent, 5.3 per cent and 2.2 per cent respectively. The volume of agricultural production remained relatively constant during the five-year period 1961/62 to 1965/66, owing to the droughts which were experienced. In 1967, however, favourable weather conditions resulted in record summer grain crops. This substantial increase in grain production was the main reason why the total physical volume of production increased by no less than 26 per cent compared to that of the previous year. In Table 7.1.1 the annual growth rates in the production of this sector over the programming period, corresponding with the overall growth rates of 5, 5½ and 6 per cent, are estimated at 3.2, 3.4 and 3.8 per cent respectively. These rates of growth are lower than the average rate of 4 per cent which was calculated for the decade 1957 to 1967. In the estimates for 1973 it was assumed that that year would be a "normal" agricultural year and according by no allowance was made for short-term fluctuations which may be brought about by weather conditions or other unpredictable factors. In the consideration of the difference growth rates, the record crops in the base year and the assumption concerning the terminal year must therefore be borne in mind.

Table 7.1.1: Estimated development of the agriculture, forestry and fishing sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	1,500	1,813	1,834	1,873	3.2	3.4	3.8
Imports	89	87	90	93			
Total supply = total demand	1,589	1,900	1,924	1,966	3.0	3.2	3.6
Domestic demand (excluding inventories)	1,158	1,504	1,527	1,556	4.5	4.7	5.0
Change in inventories	160	19	24	25			
Exports	271	377	373	385	5.7	5.5	6.0
Gross capital formation (total for the period)		960	990	1,020			
	Thousands						
Employment:							
Total	1,912	2,066	2,066	2,066	1.3	1.3	1.3
White	116	113	113	113	-0.4	-0.4	-0.4
Non-White	1,796	1,953	1,953	1,953	1.4	1.4	1.4
Growth rate in the contribution per worker to the G.D.P.					1.9	2.1	2.5

184. The wheat crop for the 1966/67 season, as for the 1965/66 season, was again small as a result of the exceptionally dry conditions which prevailed in practically all the major production areas. A record amount of wheat was consequently imported during the 1966/67 season. The value of imported agricultural, forestry and fishing products, amounting to R89 million for 1967, may therefore, like the imports for 1966, be regarded as abnormally high compared with the imports of R49 million in 1965. It is accordingly anticipated that the 1973 import figure will not deviate materially from the 1967 level.

185. The average growth rate of the exports of agricultural products, for each of the two past decades, was approximately 6 per cent. The exports of R271 million for 1967 were relatively high as a result of the favourable agricultural crops in the base year (the larger crops were, however, not all exported in the relevant year); it has therefore been assumed that, for the 5 and 5½ per cent growth rates in the real G.D.P., the rate of expansion in agricultural exports will be somewhat slower that that attained in the past.

186. As indicated in Table 7.1.1, the increase in the domestic demand (excluding inventories) for agricultural, forestry and fishing products is estimated at 4.5 per cent, 4.7 per cent and 5.0 per cent for the 5, 5½ and 6 per cent growth alternatives respectively.

187. The major domestic consumers of the products of this sector are shown in Table 7.1.2.

Table 7.1.2: Domestic consumption pattern of agricultural, forestry and fishing products
(R million)

Sectors	1967	1973		
		Growth rates in the G.D.P. of		
		5%	5½%	6%
Agriculture, forestry and fishing	72	87	88	90
Processed foodstuffs	620	807	815	827
Beverages and tobacco	41	53	54	56
Textiles	60	90	93	95
Wood and wood products	23	28	30	31
Paper and paper products	6	9	9	10
Rubber products	15	20	21	22
Basic industrial chemicals	7	10	10	11
Miscellaneous chemicals	9	13	14	14
Miscellaneous services	6	8	8	9
Other sectors	6	10	10	11
Total intermediate demand	865	1,135	1,152	1,176
Private consumption expenditure	285	358	364	369
Current expenditure by general government	8	11	11	11
Change in inventories	160	19	24	25
Total final domestic demand	453	388	399	405
Total domestic expenditure	1,318	1,523	1,551	1,581

188. The main intermediate consumer of the products of this sector is the processed foodstuffs sector which processes edible agricultural products mainly into foodstuffs for the final consumer. Other important intermediate consumers are the agricultural sector itself, which makes use of agricultural products in the form of fodder, poultry feed, seed, seedlings and saplings; the beverages and tobacco sector, which uses barley, Kaffir corn and hop in the manufacture of beer, grapes in the manufacture of beverages, and tobacco leaf in the manufacture of pipe tobacco and cigarettes; the textiles sector, which processes raw wool, seed cotton and raw jute into textile articles; the wood and paper sectors which process logs into sawn and planed timber, wooden products and paper; and the rubber sector which consumes natural rubber in the manufacture of tyres and tubes and other rubber products.

189. As far as capital formation in this sector is concerned, R960 million, R990 million and R1,020 million respectively will be required, for the alternative rates of expansion in the economy, to replace and extend capital assets over the programming period.

190. Finally, the expected course of events as regards employment in the agriculture, forestry and fishing sector is dealt with. According to Table 7.1.1 the total employment in this sector over the six-year period will increase by 1.3 per cent per annum for all three the growth alternatives in the G.D.P., which is substantially lower than the anticipated growth in the production. The contribution per worker to the G.D.P. accordingly increases by 1.9 per cent, 2.1 per cent and 2.5 per cent per annum respectively for the alternative growth rates.

2. Gold mining
(Part of I.S.I.C. 122)

191. Since uranium is mainly obtained as a by-product of the gold mines, it is included in this sector.

192. The index of the physical volume of production of gold is reflected in Figure 7.2.

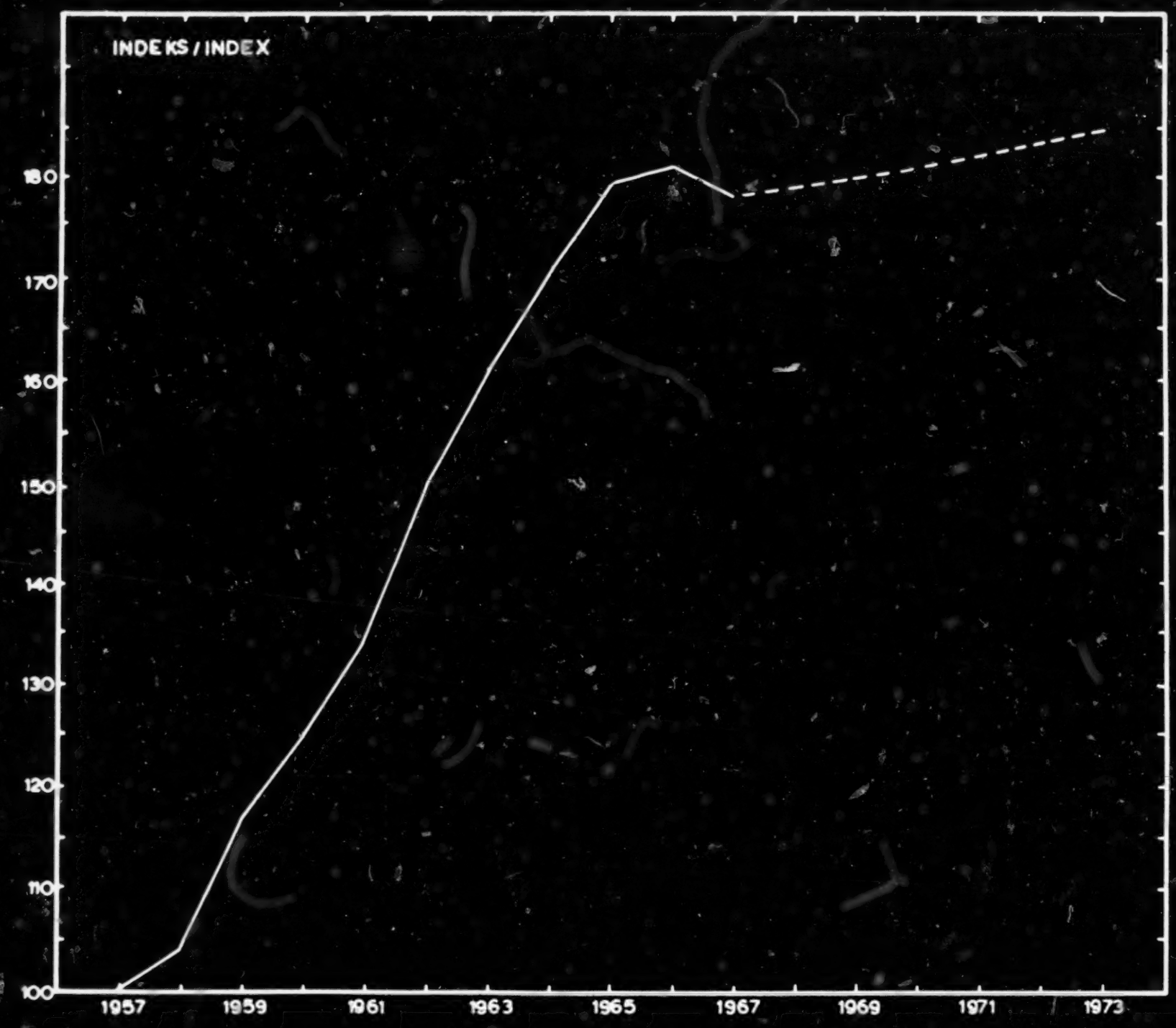

Fig. 7.2: Index of the physical volume of production of gold
1957 = 100

193. The production of gold increased at an average rate of 8.3 per cent per annum over the period 1957 to 1963. From 1963, the base year of the first E.D.P., the slope of the production curve began to show a gradual decline, with the ultimate peak probably not far off. The average increase over the four-year period ending in 1967 was only 2.6 per cent per annum, and it is estimated that the production of this sector for the year 1973 will exceed the 1967 figure by only 3.8 per cent.

Table 7.2.1: Estimated development of the gold mines (including uranium)

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	808	839	839	839	0.6	0.6	0.6
Imports	-	-	-	-			
Total supply = total demand	808	839	839	839			
Domestic demand (excluding inventories)	2	4	4	4			
Exports	806	835	835	835	0.6	0.6	0.6
Gross capital formation (total for the period)		700	700	700			
	Thousands						
Employment:							
Total	414	361	361	361	-2.2	-2.2	-2.2
White	43	37	37	37	-2.5	-2.5	-2.5
Non-White	371	324	324	324	-2.2	-2.2	-2.2
Growth rate in the contribution per worker to the G.D.P.					2.9	3.0	3.0

194. The products of this sector are mainly exported and the exports therefore increase in nearly the same proportion as the total production, i.e. at 3.6 per cent between 1967 and 1973. The intermediate demand for the products of this sector is very small, being used mainly by the basic non-ferrous metals sector, the miscellaneous manufacturing sector and the miscellaneous services sector.

195. Although the production of this sector reflects only a moderate increase, the gross capital formation required for the entire programming period is nevertheless estimated at R700 million. This capital is required mainly for the maintenance of the existing assets and for the development works associated with the extraction of the gold ore.

196. In so far as employment in this sector is concerned, it can be observed from Table 7.2.1 that the total employment will decline from 414,000 persons in 1967 to 361,000 in 1973. Since the production of this sector is increasing, the above-mentioned decline in employment implies an increase of 2.9 per cent per annum in the contribution per worker to the G.D.P. if a growth of 5 per cent in the real G.D.P. is realised, and of 3.0 per cent per annum in the case of the growth rates of 5½ and 6 per cent in the Gross Domestic Product.

3. Coal mining
(I.S.I.C. 110)

197. The index of the physical volume of production of coal for the riod 1957 to 1967 as well as the projections over the next six-year period for a $5\frac{1}{2}$ per cent growth in the G.D.P., are presented graphically in Figure 3.1 below.

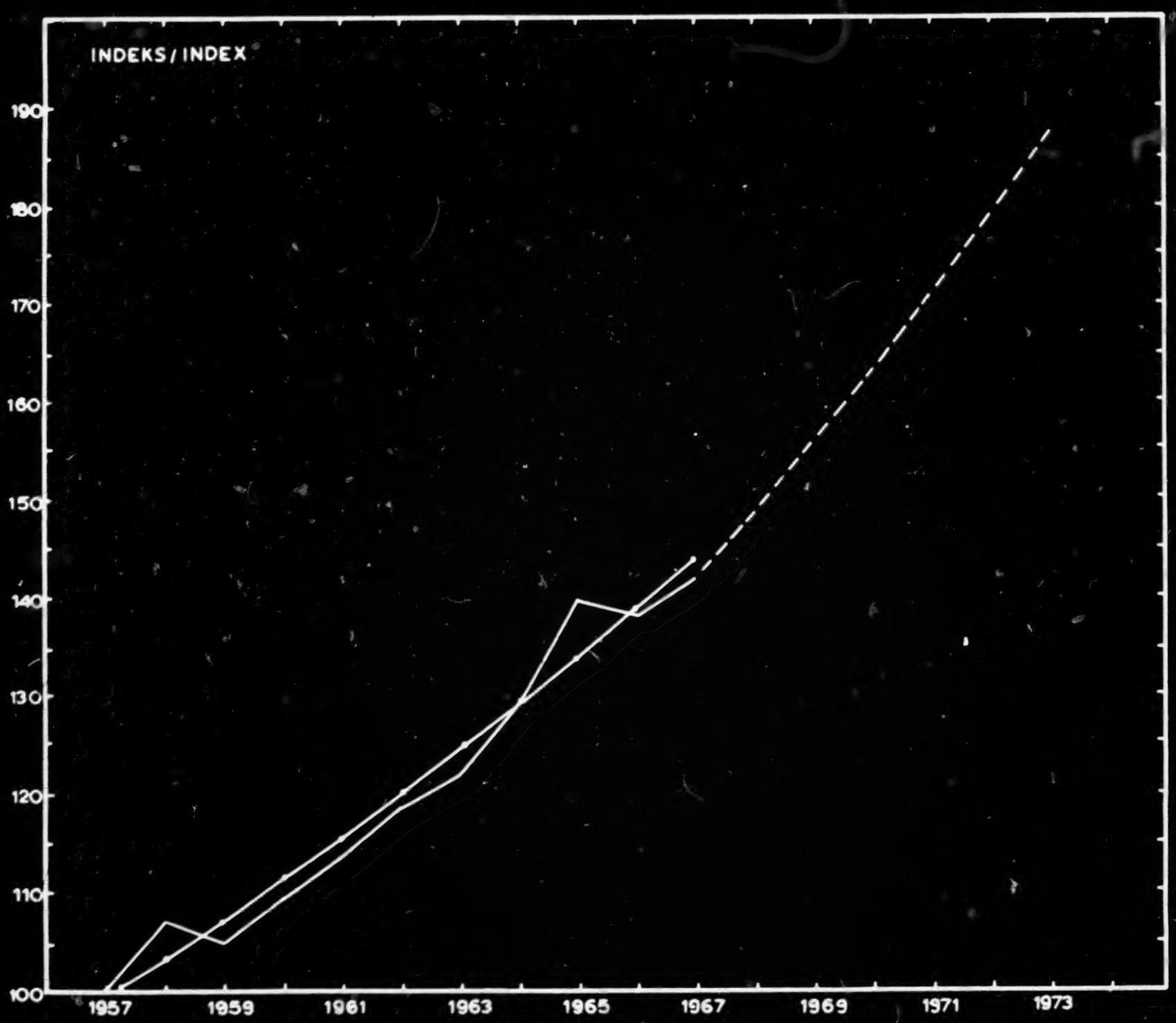

Fig. 7.3: Index of the physical volume of production of coal
1957 = 100

198. The long-term growth rate over the period 1957 to 1967 was 3.4 per cent per annum, while an average growth rate of 3.8 per cent in the production was realised over the four-year period 1963 to 1967. According to Table 7.3.1 it is anticipated that the production of coal will grow at a faster rate over the period 1967 to 1973 than in the past, namely at 4.0 per cent, 4.7 per cent and 5.2 per cent per annum respectively, for the three alternative rates of growth in the economy as a whole. A minimal quantity of coal was imported in 1967 and no change in this tendency is expected for the foreseeable future.

Table 7.3.1: Estimated development of the coal mining sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	98	124	128	133	4.0	4.7	5.2
Imports	-	-	-	-			
Total supply = total demand	98	124	128	133	4.0	4.7	5.2
Domestic demand (excluding inventories)	92	118	122	127	4.2	5.0	5.5
Change in inventories	2	1	1	1			
Exports	4	5	5	5			
Gross capital formation (total for the period)		72	80	87			
	Thousands						
Employment:							
Total	68	70	72	74	0.5	1.0	1.5
White	4	4	4	4	-0.6	-0.2	0.4
Non-White	64	66	68	70	0.6	1.1	1.6
Growth rate in the contribution per worker to the G.D.P.					3.5	3.6	3.6

199. In so far as sales of this sector's products are concerned, it is clear from Table 7.3.2 that intermediate demand represents the most important domestic market for coal and amounted to 93 per cent of the total domestic expenditure on this product in 1967. The most important intermediate consumers of South African produced coal are the electricity, gas and water sector; the transport and communication sector (mainly the South African Railways); the basic steel products sector (mainly Iscor) for the manufacture of coke and gas as well as the generation of electricity; the petroleum and coal products sector for the manufacture of petrol, coke and a variety of other chemicals; and the non-metallic mineral products sector which uses coal for fuel in the production of such products as bricks, tiles, glass, cement, etc. According to estimates set out in Table 7.3.2, the intermediate demand will increase by an average of 4.5 per cent, 5.1 per cent and 5.8 per cent respectively, assuming alternative growth rates of 5 per cent, 5½ per cent and 6 per cent in the G.D.P.

Table 7.3.2: The pattern of the domestic consumption of coal
(R million)

Sectors	1967	1973		
		Growth rates in the G.D.P. of		
		5%	5½%	6%
Non-metallic mineral products	6	8	9	9
Basic steel products	9	14	15	16
Electricity, gas and water	31	43	45	46
Transport and communication	17	14	14	15
Other sectors	24	34	34	36
Total intermediate demand	87	113	117	122
Private consumption expenditure	4	4	4	4
Change in inventories	1	1	1	1
Current expenditure by general government	2	1	1	1
Total final domestic demand	7	6	6	6
Total domestic expenditure	94	119	123	128

200. Two thirds of the coal exported in 1967 consisted of anthracite coal. The estimate for coal exports in 1973 is set at R5 million,which is only R1 million higher than the 1967 figure, and it is expected to remain at the same level for each of the alternative growth rates.

201. To realise the production estimates set out in Table 7.3.1 gross capital formation amounting to R72 million, R80 million and R87 million will be required over the programming period if alternative growth rates of 5, 5½ and 6 per cent respectively are assumed for the economy as a whole.

202. Employment in this sector is expected to increase over the programming period but at a considerably slower rate than the increase in production. Accordingly there will be a 3.5 per cent increase in the contribution per worker to the real G.D.P. if the G.D.P. should grow at a rate of 5 per cent, and a 3.6 per cent increase in the case of the other two growth rates of 5½ and 6 per cent.

4. Other mining and quarrying
(I.S.I.C. 120, 130, 140 and 190)

203. This sector includes the mining of a variety of metal ores and minerals, the most important products mined locally being diamonds, copper, iron ore, manganese, asbestos, limestone and dolomite. In equalising the demand and supply of the products of this sector, a problem arises from the fact that the minerals mined by some of the mines are processed to such an extent that they are classified as products of the basic non-ferrous metals sector in the of-

ficial foreign trade statistics. On the other hand, employment and the raw materials consumed in the process of manufacturing the metals, as well as the production of the metals, are reflected under this sector in the official statistics. Since it is not possible to separate the mining and processing activities of the mines, the export statistics have been modified, and these products have been transferred from the non-ferrous metals sector to this sector.

204. The following figure (7.4) reflects the historical development of this sector, as well as a projection of the production over the programming period for a $5\frac{1}{2}$ per cent growth rate in the G.D.P.

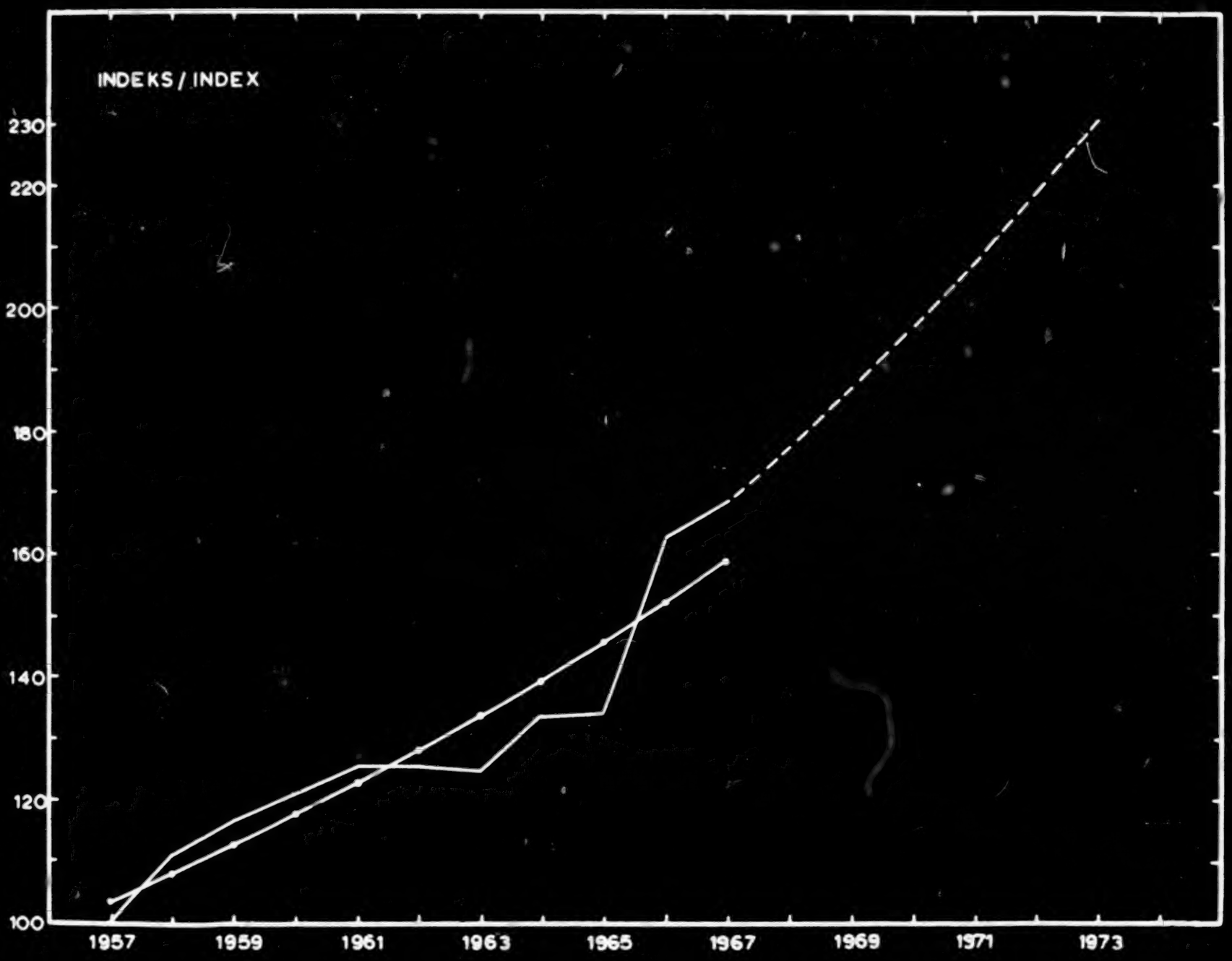

Fig. 7.4: Index of the physical volume of production of other mining and quarrying
1956/57 = 100

205. It is expected that the production of this sector will increase by 5.3 per cent, 5.4 per cent and 6.1 per cent per annum respectively, for the three alternative growth rates of 5, $5\frac{1}{2}$ and 6 per cent in the G.D.P. These growth rates are higher than the long-term growth rate of 4.4 per cent per annum, but are substantially lower than the average annual growth rate of 7.7 per cent in the production of this sector observed over the four-year period 1963 to 1967. The

expansion in the imports of the other mining products is as high as 7.1 per cent, 7.7 per cent and 8.4 per cent for the three alternative growth rates, respectively. The reason for this is that imports of crude oil will increase sharply owing to the increased local refining of this product; on the other hand, imports of petroleum products will decline markedly.

206. A substantial portion of the production of this sector is intended for the foreign market. In 1967, for example, 76 per cent of the total production went to foreign markets. The increase in the exports over the programming period is set at 5.1 per cent, 4.9 per cent and 5.5 per cent respectively for the three alternative growth rates in the G.D.P., which is lower than the estimated increases in the production of the sector.

Table 7.4.1: Estimated development of the other mining and quarrying sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	429	584	589	612	5.3	5.4	6.1
Imports	121	183	189	196	7.1	7.7	8.4
Total supply = total demand	550	767	778	808	5.7	6.0	6.6
Domestic demand (excluding inventories)	216	323	337	353	6.9	7.7	8.5
Change in inventories	9	6	8	8			
Exports	325	438	433	447	5.1	4.9	5.5
Gross capital formation (total for the period)		208	230	253			
	Thousands						
Employment:							
Total	123	153	154	159	3.7	3.7	4.4
White	13	17	17	17	4.0	4.1	4.7
Non-White	110	136	137	142	3.6	3.7	4.3
Growth rate in the contribution per worker to the G.D.P.					1.6	1.7	1.7

207. It is expected that the domestic demand (excluding inventories) will increase over the programming period by 6.9 per cent, 7.7 per cent and 8.5 per cent per annum for the alternative growth rates of 5, 5½ and 6 per cent in the G.D.P. respectively. The most important domestic consumers of the products of this sector are shown in Table 7.4.2 below, and it is obvious that the products of this sector are mainly used as intermediate inputs.

Table 7.4.2: Pattern of domestic consumption of other mining and quarrying products
(R million)

Sectors	1967	1973		
		Growth rates in the G.D.P. of		
		5%	5½%	6%
Basic chemicals	10	16	16	17
Non-metallic mineral products	21	29	31	32
Basic steel products	34	50	53	55
Basic non-ferrous metals	24	35	38	40
Machinery	8	12	13	14
Miscellaneous manufacturing	91	144	148	155
Construction	16	22	24	25
Other sectors	9	11	10	11
Total intermediate demand	213	319	333	349
Private consumption expenditure	1	1	1	1
Current expenditure by general government	2	3	3	3
Change in inventories	9	6	8	8
Total final domestic demand	12	10	12	12
Total domestic expenditure	225	329	345	361

208. The major intermediate consumers of other mining products are the petroleum sector, which refines crude oil; the non-metallic mineral products sector, which uses stone, sand, silica, clay, limestone, dolomite, asbestos, etc., in the manufacture of building bricks, tiles, earthenware and concrete pipes and fittings, cement, glass and glass products, etc.; the basic steel products sector, which uses iron ore; the miscellaneous manufacturing sector, which cuts and polishes diamonds; and the construction sector, which uses sand and crushed stone for construction purposes.

209. The total gross capital formation over the period 1967 to 1973 is estimated at R208 million, R230 million and R253 million for the three alternative growth rates in the G.D.P. respectively.

210. Total employment in this sector increases by 3.7 per cent per annum if the G.D.P. should grow at a rate of 5 or 5½ per cent, and by 4.4 per cent per annum if the G.D.P. should grow at a rate of 6 per cent. The rate of increase in employment is slower than that of production so that a slight increase in the productivity of labour is provided for.

5. Processed foodstuffs
(I.S.I.C. 201 to 209)

211. This sector is concerned mainly with the processing of agricultural and fishing products into foods for human consumption and feeds for livestock and poultry. The activities of this sector embrace the slaughtering of livestock and the preparation and preservation of meat; the manufacture of dairy products; the canning and preserving of fish, fruit and vegetables; the milling of grain; the manufacture of bread and other bakery products as well as sugar, confectionery, animal feeds and other food products.

212. The index of the physical volume of production for the sector is shown in Figure 7.5.

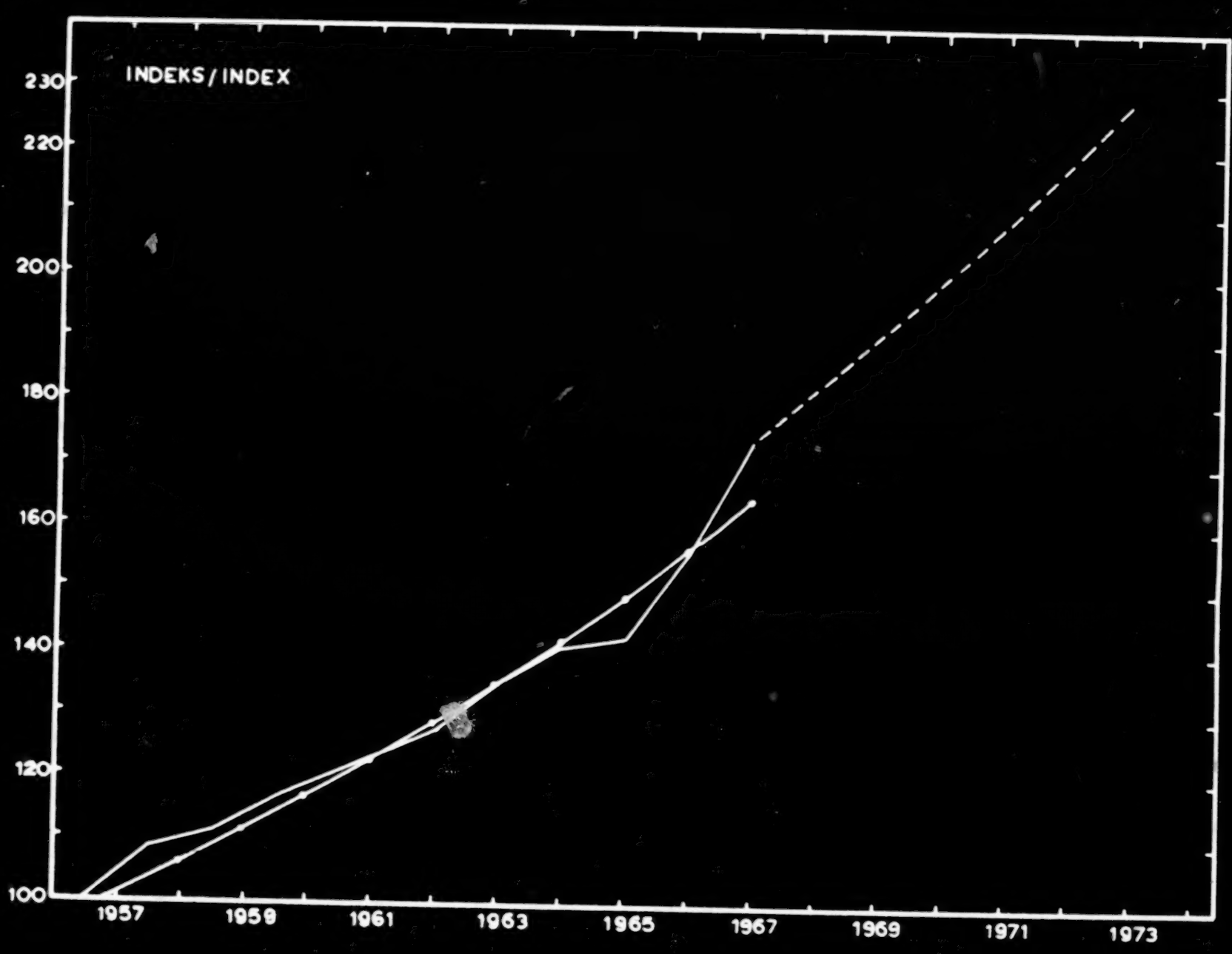

Fig. 7.5: Index of the physical volume of production of processed foodstuffs
1956/57 = 100

213. The calculated long-term growth rate for the 11-year period 1957 to 1967 averages 5.0 per cent per annum. From 1963, the base year of the first E.D.P., to 1967 a higher average growth rate of 6.5 per cent was, however, realised in the production of processed foodstuffs. According to Table 7.5.1, average annual growth rates of 4.4 per cent, 4.7 per cent and 5.0 per cent in the production are anticipated for the 5, 5½ and 6 per cent growth alternatives respectively over the programming period. During 1967 the imports of this sector amounted to R56 million and for 1973 it is kept at approximately the same level.

Table 7.5.1: Estimated development of the processed foodstuffs sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	1,257	1,632	1,653	1,682	4.4	4.7	5.0
Imports	56	52	54	56			
Total supply = total demand	1,313	1,684	1,707	1,738	4.2	4.5	4.8
Domestic demand (excluding inventories)	1,111	1,424	1,447	1,469	4.2	4.5	4.8
Change in inventories	18	11	13	14			
Exports	184	249	247	255	5.2	5.0	5.6
Gross capital formation (total for the period)		467	499	536			
	Thousands						
Employment:							
Total	128	144	145	146	2.0	2.2	2.3
White	22	23	23	24	1.2	1.3	1.4
Non-White	106	121	122	122	2.2	2.4	2.4
Growth rate in the contribution per worker to the G.D.P.					2.4	2.5	2.7

214. The domestic demand (excluding inventories) for processed foodstuffs is expected to grow at 4.2 per cent, 4.5 per cent and 4.8 per cent on average for the respective growth rates in the economy of 5, 5½ and 6 per cent over the programming period. The final domestic demand is the major market for the products of this sector and accounted for 75 per cent of the total domestic expenditure in 1967. The intermediate demand for products of this sector comprises mainly processed feed and products used by the sector itself, e.g. flour for bread. In 1967 the exports of this sector amounted to R184 million. The major export products were hides and skins, fresh meat, canned fruit and fish, and sugar. For 1973 the exports are estimated at R249 million, R247 million and R255 million for the three growth alternatives in the G.D.P. respectively.

Table 7.5.2: Pattern of domestic consumption of processed foodstuffs
(R million)

Sectors	1967	1973		
		Growth rates in the G.D.P.of		
		5%	5½%	6%
Agriculture, forestry and fishing	59	71	72	74
Processed foodstuffs	181	234	237	242
Beverages and tobacco	11	14	14	15
Leather and leather products	9	11	11	11
Miscellaneous chemicals	3	9	10	10
Miscellaneous services	13	18	19	19
Other sectors	10	11	11	10
Total intermediate demand	286	368	374	381
Private consumption expenditure	807	1,031	1,048	1,063
Current expenditure by general government	18	25	25	25
Change in inventories	18	11	13	14
Total final domestic demand	843	1,067	1,086	1,102
Total domestic expenditure	1,129	1,435	1,460	1,483

215. The estimated requirements for capital formation over the six-year period 1967 to 1973, to realise the expected growth in the production, amount to R467 million, R499 million and R536 million respectively for the three alternative growth rates.

216. As regards total employment in the processed foodstuffs sector, increases of 2.0 per cent, 2.2 per cent and 2.3 per cent are expected for the 5, 5½ and 6 per cent growth alternatives respectively. These increases are lower than the corresponding growth rates in production and consequently the contribution per worker to the G.D.P. increases by 2.4 per cent, 2.5 per cent and 2.7 per cent respectively for the three alternative growth rates in the real G.D.P.

6. Beverages and Tobacco
(I.S.I.C. 211-214 and 220)

217. This sector comprises the manufacturing of alcoholic and non-alcoholic drinks and tobacco products. Beverages account for approximately 75 per cent of the total production of the sector and tobacco products for the remainder. The index of the physical volume of production of this sector for the period 1956/57 to 1967, as well as the growth in production which may be expected in the case of an expansion of the real G.D.P. by 5½ per cent, is shown in Figure 7.6 below.

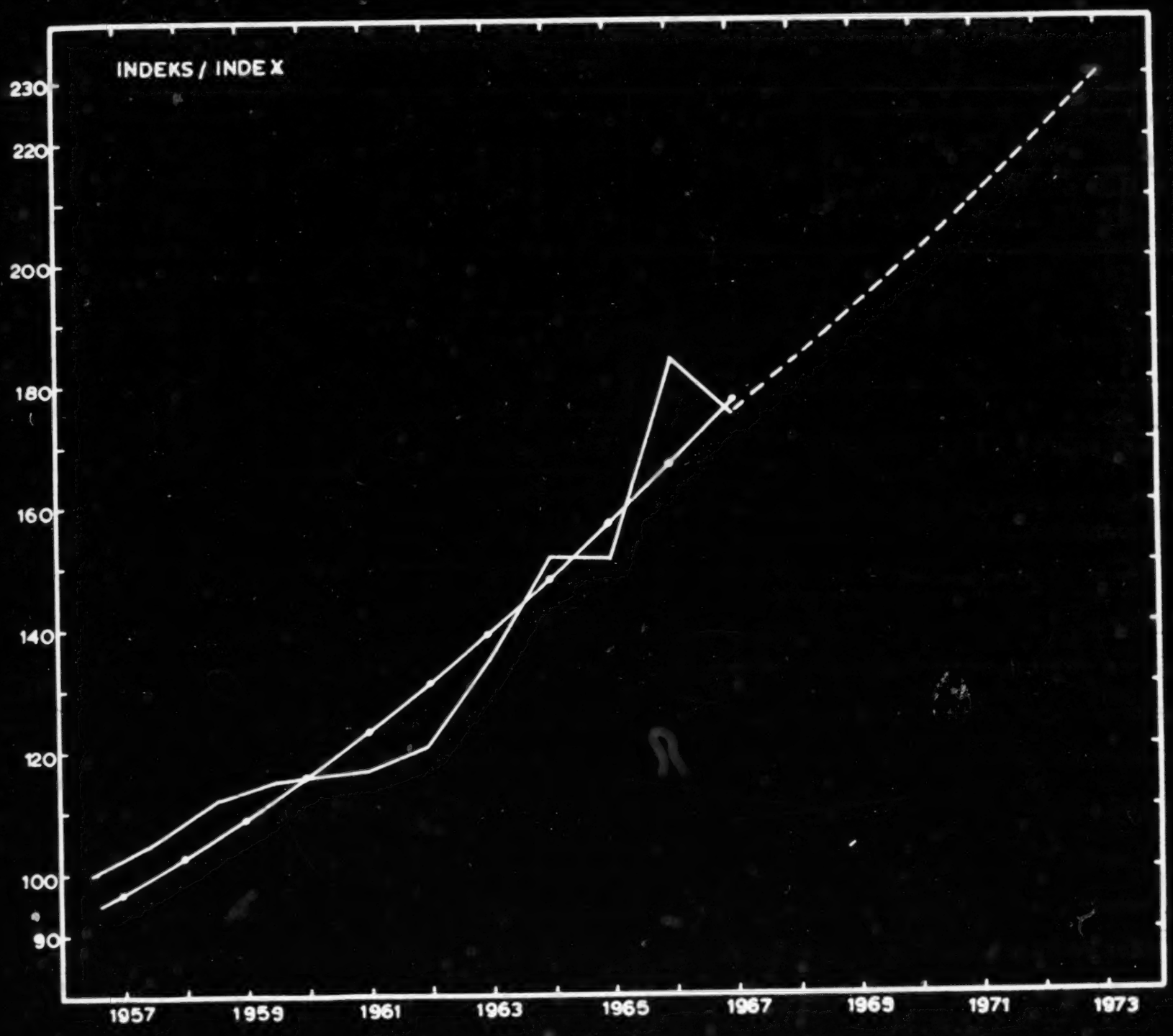

Fig. 7.6: Index of the physical volume of production of beverages and tobacco
1956/57 = 100

218. The volume of production over the 11-year period 1956/57 to 1967 increased on average by 6.2 per cent per annum, while the production over the four-year period 1963 to 1967 expanded by an average of 6.7 per cent per annum.

219. Estimated average annual growth rates of 4.4 per cent, 4.7 per cent and 5.1 per cent in the production for the 5, 5½ and 6 per cent growth alternatives respectively are indicated in Table 7.6.1. The imports of beverages and tobacco constitute only a small proportion of the total supply, and it is expected that the imports will reflect a moderate decline over the programming period.

Table 7.6.1: Estimated development of the beverages and tobacco sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	220	285	290	297	4.4	4.7	5.1
Imports	11	10	10	10			
Total supply = total demand	231	295	300	307	4.2	4.5	4.9
Domestic demand (excluding inventories)	216	277	281	287	4.2	4.5	4.9
Change in inventories	5	2	3	3			
Exports	10	16	16	17			
Gross capital formation (total for the period)		145	155	167			
	Thousands						
Employment:							
Total	26	28	28	29	1.0	1.2	1.5
White	6	6	6	7	0.1	0.3	0.5
Non-White	20	22	22	22	1.3	1.5	1.8
Growth rate in the contribution per worker to the G.D.P.					3.4	3.5	3.7

220. The domestic demand (excluding inventories) is expected to increase by 4.2 per cent, 4.5 per cent and 4.9 per cent per annum for the 5, 5½ and 6 per cent growth alternatives respectively. In Table 7.6.2 the domestic demand is further analysed and as can be seen from this table, private consumption expenditure constitutes the main market for the products of this sector. The intermediate demand is mainly for beverages and tobacco required by the sector itself for further processing, while beverages and tobacco products are also used by the miscellaneous services sector.

221. In 1967 beverages were the main export, to the value of R10 million. For 1973 the exports are set at R16 million for the 5 and 5½ per cent growth alternatives in the G.D.P., while an export figure of R17 million is envisaged in the case of the 6 per cent growth alternative.

Table 7.6.2: Pattern of domestic consumption of beverages and tobacco
(R million)

Sectors	1967	1973		
		Growth rates in the G.D.P. of 5%	5½%	6%
Beverages and tobacco	46	59	60	61
Miscellaneous services	4	6	6	6
Other sectors	1	1	1	1
Total intermediate demand	51	66	67	68
Private consumption expenditure	165	211	214	219
Change in inventories	5	2	3	3
Total final domestic demand	170	213	217	222
Total domestic expenditure	221	279	284	290

222. With regard to capital formation in this sector, it is estimated that over the programming period R145 million, R155 million and R167 million respectively in gross capital formation will be required to realise the expected increases in production associated with the alternative growth rates of 5, 5½ and 6 per cent in the G.D.P.

223. Total employment in the beverages and tobacco sector is expected to increase by 1.0 per cent, 1.2 per cent and 1.5 per cent for the 5, 5½ and 6 per cent growth alternatives respectively. These increases are lower than the corresponding estimated growth rates in production with the result that the contribution per worker to the G.D.P. increases by 3.4 per cent, 3.5 per cent and 3.7 per cent for the three alternative growth rates in the G.D.P. respectively.

7. Textiles*
(I.S.I.C. 231, 233, 239 and 244)

224. This sector includes woolscouring and combing, cotton ginning, fibre working, spinning and weaving of textiles, and the manufacture of rope, cordage and twine; artificial leather, oil cloth and other impregnated and coated fabrics; felt, wadding etc.; soft furnishings; bags and sacks; tents and other canvas goods.

225. Spinning and weaving, the most important activity of this sector, contributes approximately 60 per cent to the total production; woolscouring and combing follows with 10 per cent; while the remaining activities are more or less of equal importance.

226. The observed indices of the physical volume of production of this sector for the period 1956/57 to 1967, as well as the expected growth over the following six-year period, corresponding to a 5½ per cent growth in the G.D.P., are shown in Figure 7.7.

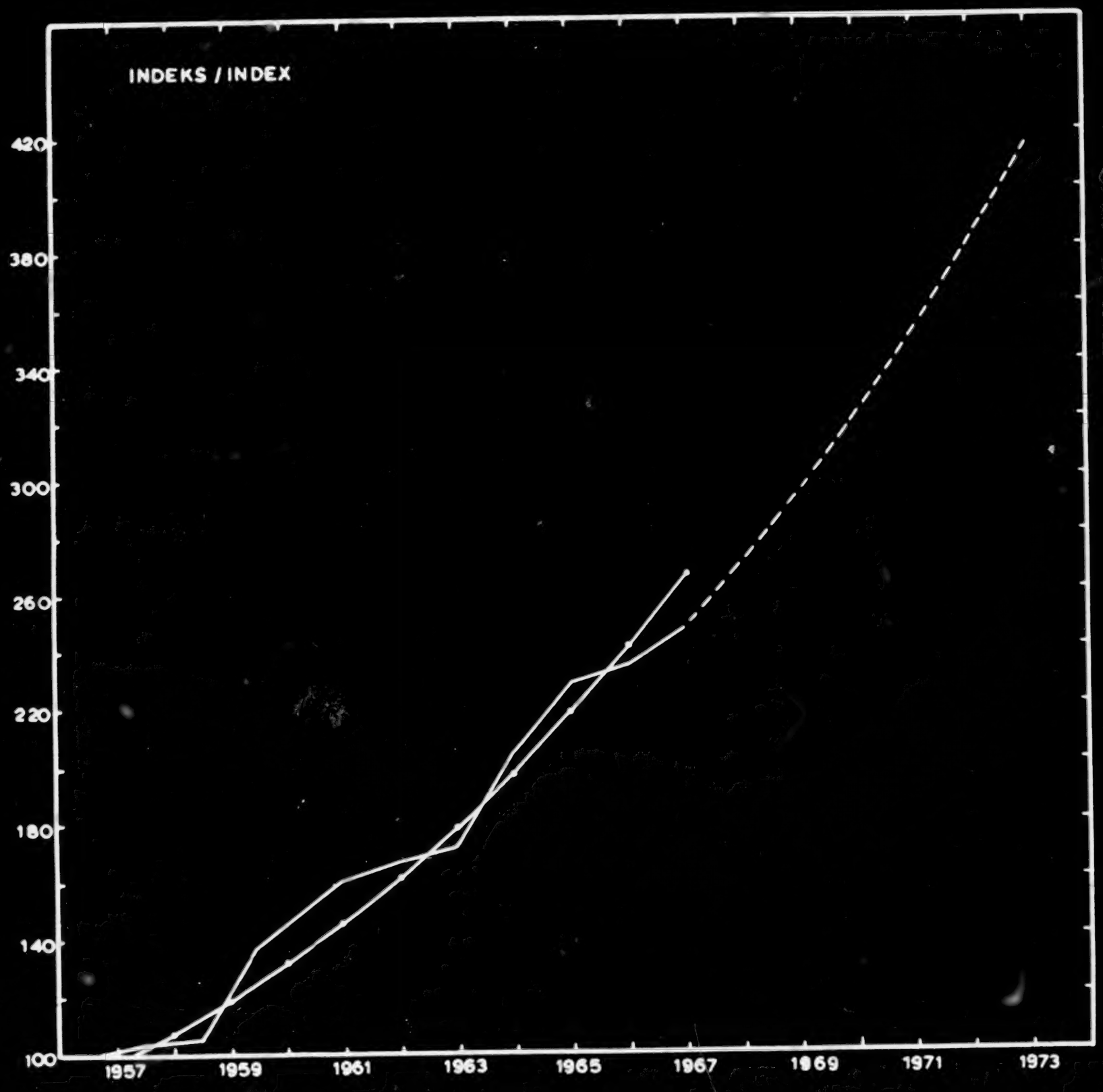

Fig. 7.7: Index of the physical volume of production of textiles
1956/57 = 100

227. Over the period 1956/57 to 1967 the volume of production increased at an average rate of 10.5 per cent per annum. The actual production fluctuated around the trend values and was characterised by periods of rapid expansion followed by periods of slower growth. The first two years following 1963, the base year of the first E.D.P., were in fact one of these expansionary periods and production increased at an annual rate of 15.1 per cent over these two years. This rapid expansion was partly the result of the assistance given by the Government for the development of textile industries in the border areas. Over the past two years production has increased at a rate of only 4.1 per cent per annum, and the expectation is that another two years will elapse before the textile industry will again be able to develop at a faster rate. According to Table 7.7.1 the production of textiles advances over the programming period at annual rates of 6.8 per cent, 7.3 per cent and 7.9 per cent for the 5, 5½ and 6 per cent growth alterna-

tives respectively. These high growth rates can be attributed to the fact that imports of textiles are expected to remain more or less the same. It was pointed out by the Sectoral Advisory Committee that the replacement of imports by local produc tion could only take place if the Government gave sufficient protection to the textile industry by effectively applying the existing protective tariffs.

Table 7.7.1: Estimated development of the textile sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	350	519	535	551	6.8	7.3	7.9
Imports	173	167	173	179			
Total supply = total demand	523	686	708	730	4.6	5.2	5.7
Domestic demand (excluding inventories)	483	622	642	661	4.3	4.8	5.4
Change in inventories	4	13	16	17			
Exports	36	51	50	52	6.0	5.8	6.3
Gross capital formation (total for the period)		277	296	318			
	Thousands						
Employment:							
Total	68	97	100	102	6.1	6.6	6.9
White	7	9	9	9	3.5	4.0	4.3
Non-White	61	88	91	93	6.4	6.9	7.2
Growth rate in the contribution per worker to the G.D.P.					0.7	0.8	1.0

228. For the period 1967 to 1973 exports show annual increases of 6.0 per cent, 5.8 per cent and 6.3 per cent respectively for the three alternative growth rates. Textile exports consist mainly of degreased wool, wool tops and noils.

229. The domestic consumption pattern of textiles for the years 1967 and 1973 are given in the following table.

Table 7.7.2: Pattern of domestic consumption of textiles
(R million)

Sectors	1967	1973		
		Growth rates in the G.D.P. of 5%	5½%	6%
Agriculture, forestry and fishing	21	25	25	26
Processed foodstuffs	13	17	17	17
Textiles	116	172	177	182
Knitting mills	30	43	45	46
Clothing	85	104	108	111
Furniture	8	10	10	11
Rubber products	13	17	17	18
Other sectors	29	41	44	46
Total intermediate demand	315	429	443	457
Private consumption expenditure	165	188	194	199
Current expenditure by general government	3	5	5	5
Change in inventories	4	13	16	17
Total final domestic demand	172	206	215	221
Total domestic expenditure	487	635	658	678

230. One of the major consumers of the products of this sector is the textile sector itself, which purchases scoured and combed wool, ginned cotton, threads and woven fabrics for further processing.

231. Other important consumers are the clothing sector which uses woven fabrics and thread; the knitting mills sector, which consumes thread; and the agricultural and processed foodstuffs sector, which make use of packing materials (jute and cotton bags and sacks).

232. To attain the estimated increases in production, gross capital formation amounting to R277 million, R296 million and R318 million respectively will be required by this sector over the entire programming period for the three alternative growth rates.

233. As regards employment in the textile sector, the total number of employees will increase by 6.1 per cent, 6.6 per cent and 6.9 per cent per annum for the 5, 5½ and 6 per cent growth alternatives respectively, which are slightly lower than the annual increases in production. The contribution per worker to the G.D.P. therefore increases by 0.7 per cent, 0.8 per cent and 1.0 per cent per annum for the three growth alternatives respectively.

8. Knitting mills*
(I.S.I.C. 232)

234. The activities of this sector include the knitting of hosiery and clothing as well as the knitting of piece goods, etc. The former activity contributes approximately two thirds to the production of the sector, and the latter one third.

235. The figure below shows the index of the physical volume of production for this sector for the period 1957 to 1967 as well as the projected production for the programming period, assuming that the G.D.P. grows at a rate of $5\frac{1}{2}$ per cent per annum.

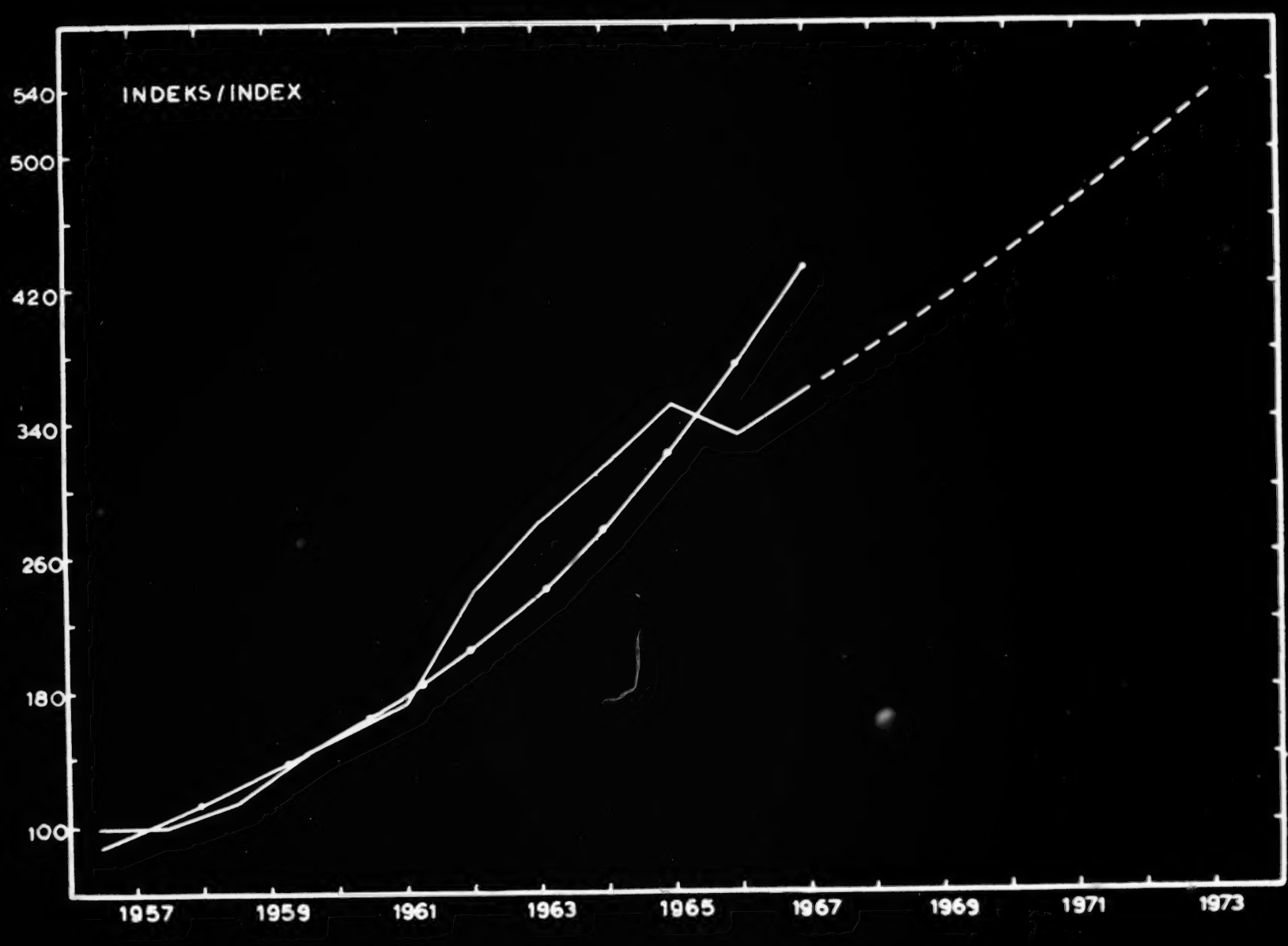

Fig. 7.8: Index of the physical volume of production of knitting mills
1956/57 = 100

236. For the 5, $5\frac{1}{2}$ and 6 per cent growth alternatives the expected increases in the production are 6.1 per cent, 7.0 per cent and 7.4 per cent respectively. These growth rates are

lower than the annual increase of 16.3 per cent realised over the period 1957-1967, but is more in line with the rate of 6.2 per cent at which the production of the sector advanced during the four-year period 1963 to 1967. Provision is made for a small decline in the imports of the sector. The Advisory Committee pointed out that higher tariff protection should be granted to the sector.

Table 7.8.1: Estimated development of the knitting mills sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	75	107	112	115	6.1	7.0	7.4
Imports	21	17	18	19			
Total supply = total demand	96	124	130	134	4.4	5.2	5.7
Domestic demand (excluding inventories)	91	118	123	127	4.4	5.2	5.7
Change in inventories	1	1	2	2			
Exports	4	5	5	5			
Gross capital formation (total for the period)		46	49	53			
	Thousands						
Employment:							
Total	14	19	19	20	4.4	5.1	5.2
White	2	3	2	3	3.0	3.7	3.9
Non-White	12	16	17	17	4.6	5.3	5.5
Growth rate in the contribution per worker to the G.D.P.					1.8	2.0	2.1

237. The knitting mills sector manufactures mainly for the domestic market and a relatively small quantity is exported. Exports of knitted goods amounted to R4 million in 1967, and it is expected that it will reach R5 million in 1973.

238. According to the estimates in Table 7.8.2 the final domestic demand (excluding inventories) for knitted goods will increase by 4.6 per cent, 5.3 per cent and 5.8 per cent if the economy grows at 5, 5½ and 6 per cent respectively. The intermediate demand for the products of this sector emanates mainly from the clothing sector. The estimated pattern of domestic consumption for 1967 and 1973 is shown in Table 7.8.2 below.

Table 7.8.2: Estimated pattern of domestic consumption of the products of knitting mills
(R million)

Sectors	1967	1973		
		Growth rates in the G.D.P. of 5%	5½%	6%
Total intermediate demand	14	17	18	19
Private consumption expenditure	77	101	105	108
Change in inventories	1	1	2	2
Total final domestic demand	78	102	107	110
Total domestic expenditure	92	119	125	129

239. To attain the increases in production indicated in Table 7.8.1, gross capital formation amounting to R46 million, R49 million and R53 million will be required over the entire programming period for the 5, 5½ and 6 per cent growth rates respectively.

240. As regards employment in the knitting mills sector, the total number of employees will increase by 4.4 per cent, 5.1 per cent and 5.2 per cent for the three growth alternatives respectively. On the basis of the estimated growth in production, these increases in employment imply a growth in the contribution per worker to the G.D.P. of 1.8 per cent, 2.0 per cent and 2.1 per cent per annum for the three growth alternatives respectively.

9. Clothing* (I.S.I.C. 243)

241. This sector comprises the manufacturing of clothing, ladies' handbags, umbrellas, walking sticks and hats, and bespoke tailoring. The manufacturing of clothing is the most important activity and contributes approximately 95 per cent to the total production of the clothing sector.

242. The course of the index of the physical volume of production for this sector is shown in Figure 7.9 below. For the period 1957-1967 the graph is based on the index of the physical volume of production compiled by the Bureau of Statistics, whereas the projection for the period 1968 to 1973 is obtained by applying the estimated growth rate in the production of the sector, that coincides with a 5½ per cent growth in the G.D.P., to the 1967 volume index.

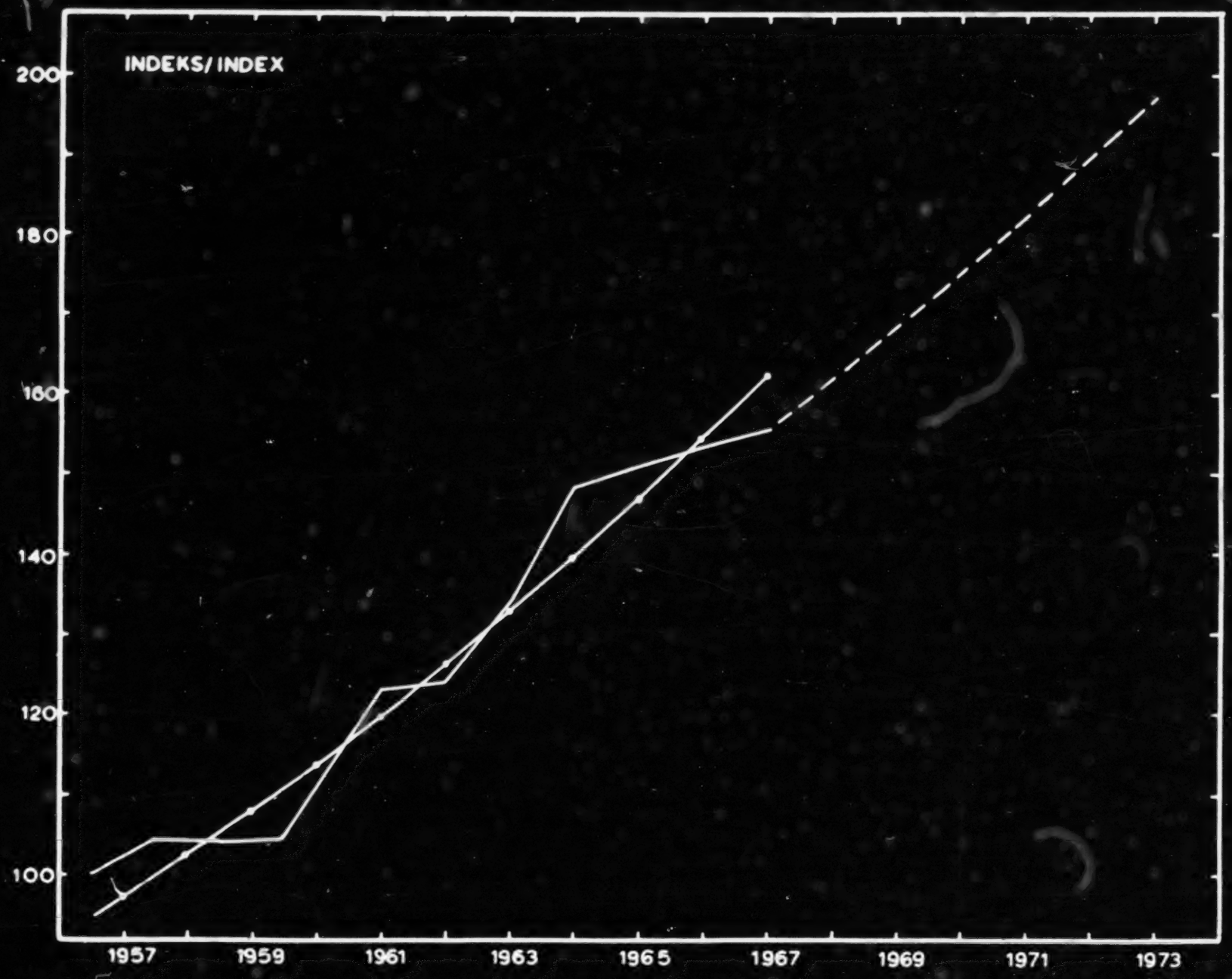

Fig. 7.9: Index of the physical volume of production of clothing
1956/57 = 100

243. Imports of clothing are already at a relatively low level and consequently it is not expected that import replacement will be an important source of growth for this sector. On the contrary, it is expected that the average increase in the imports of clothing over the next six-year period will be higher than the average increase in the local production.

244. At the Sectoral Advisory Committee meeting the view was expressed that the Bantu is becoming an increasingly important consumer of clothing. As a result, however, of the high tariff protection enjoyed by the local textile industry the clothing sector is forced to make use of the more expensive locally produced raw materials. The Advisory Committee pointed out that the sector is consequently unable to offer a variety of cheap clothing, and that this will depress the expansion of this potential market.

245. In the calculation of the long-term growth rate, years were included when import re-

placement still played an important role and the growth rate was consequently higher than the estimated growth rates of 3.3 per cent, 4.0 per cent and 4.6 per cent for the 5, 5½ and 6 per cent growth alternatives respectively. The projected growth rates in the production are more in line with the 3.8 per cent growth recorded in the production of the sector for the four-year period 1963 to 1967. It is foreseen that imports of clothing will increase over the programming period for the three growth alternatives by 4.2 per cent, 4.7 per cent and 5.3 per cent respectively. Whereas the imports of clothing stayed more or less constant during recent years, it is estimated that on account of the larger imports from Rhodesia, total imports of clothing will increase over the programming period from R25 million in 1967 to R33 million in 1973, assuming an expansion of 5½ per cent per annum in the G.D.P.

Table 7.9.1: Estimated development of the clothing sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	216	263	273	283	3.3	4.0	4.6
Imports	25	32	33	34	4.2	4.7	5.3
Total supply = total demand	241	295	306	317	3.4	4.1	4.7
Domestic demand (excluding inventories)	223	274	284	294	3.5	4.1	4.7
Change in inventories	5	6	7	7			
Exports	13	15	15	16			
Gross capital formation (total for the period)		47	50	54			
	Thousands						
Employment:							
Total	84	96	100	102	2.4	3.0	3.3
White	10	9	10	10	-0.3	0.3	0.6
Non-White	74	87	90	92	2.7	3.3	3.7
Growth rate in the contribution per worker to the G.D.P.					1.0	1.1	1.3

246. The export of the products of this sector is relatively small. In 1967 R13 million or only 6.0 per cent of its production was exported, and exports are set at approximately R15 million in 1973. According to the estimates in Table 7.9.2 the final domestic demand for clothing will increase between 1967 and 1973 by 3.4 per cent, 4.1 per cent and 4.7 per cent for the three growth alternatives respectively. The intermediate demand for the products of this sector is relatively small and is mainly for protective clothing for the gold mines and other sectors, as well as

clothing required for further processing in the clothing sector itself. The estimated pattern of domestic demand for 1967 and 1973 is given in the following table.

Table 7.9.2: The pattern of domestic demand for clothing
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of		
		5%	5½%	6%
Total intermediate demand	8	11	11	12
Private consumption expenditure	213	260	270	279
Current expenditure by general government	2	3	3	3
Change in inventories	5	6	7	7
Total final domestic demand	220	269	280	289
Total domestic expenditure	228	280	291	301

247. To attain the increases in production shown in Table 7.9.1 gross capital formation to the extent of R47 million, R50 million and R54 million will be required in this sector over the entire programming period for the 5, 5½ and 6 per cent growth rates in the G.D.P. respectively.

248. As regards employment in the clothing sector the total number of employees will increase for the three growth alternatives by 2.4 per cent, 3.0 per cent and 3.3 per cent respectively. On the basis of the estimated growth rates in production, these rises in employment imply increases of 1.0 per cent, 1.1 per cent and 1.3 per cent per annum in the contribution per worker to the G.D.P. for the three growth alternatives respectively.

10. Footwear*
(I.S.I.C. 241 and 242)

249. This sector comprises the manufacturing and repair of shoes. The manufacturing of shoes contributes approximately 95 per cent to the total production of this sector and the repair of shoes the remaining 5 per cent.

250. The course of the production index over the period 1956/57 to 1967, as well as the projection for a 5½ per cent increase in the G.D.P., is shown graphically below.

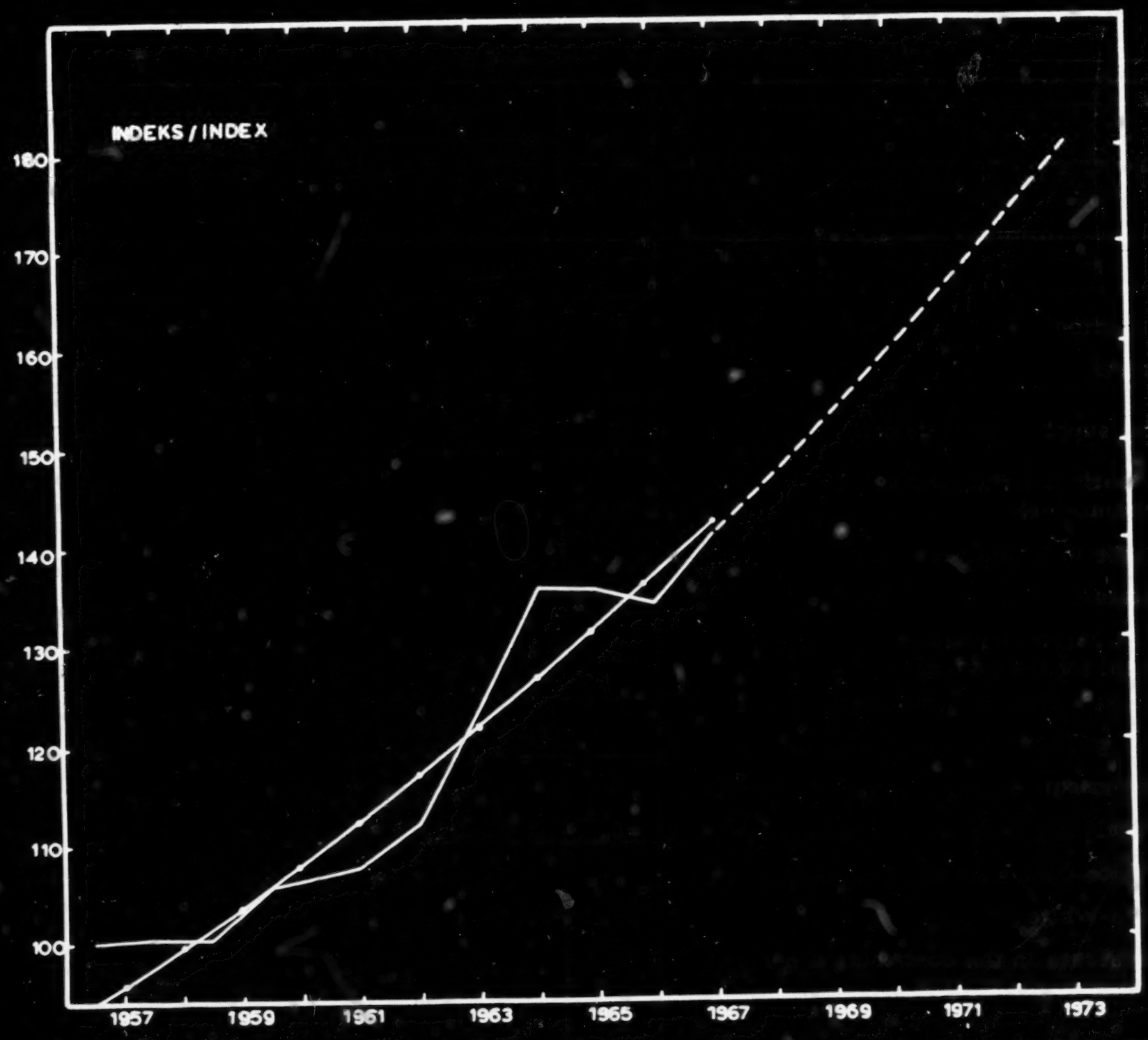

Fig. 7.10: Index of the physical volume of production of footwear
1956/57 = 100

251. The footwear sector produces mainly for private consumers in the local market, and since imports of footwear are already at a low level, the growth in production is largely determined by the development of the final domestic demand. The long-term growth rate for the eleven-year period 1957 to 1967 is calculated at 4.1 per cent per annum, and the average annual increases for the period 1967 to 1973 are set at 3.8 per cent, 4.2 per cent and 4.6 per cent for the alternative growth rates of 5, 5½ and 6 per cent in the real G.D.P. respectively. Imports of footwear in 1973 are estimated at R5 million, i.e. R1 million above the import figure for 1967. It is expected that the additional imports will come chiefly from Rhodesia, which enjoys special tariff concessions.

Table 7.10.1: Estimated development of the footwear sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	75	94	96	98	3.8	4.2	4.6
Imports	4	5	5	5			
Total supply = total demand	79	99	101	103	3.8	4.2	4.5
Domestic demand (excluding inventories)	73	93	95	97	4.1	4.5	4.9
Change in inventories	2	2	2	2			
Exports	4	4	4	4			
Gross capital formation (total for the period)		25	26	28			
	Thousands						
Employment:							
Total	30	32	33	33	1.3	1.7	1.8
White	3	3	3	3	-2.6	-2.3	-2.2
Non-White	27	29	30	30	1.8	2.1	2.2
Growth rate in the contribution per worker to the G.D.P.					2.4	2.5	2.7

252. Exports of footwear are not at present an important market for the products of this sector. For 1973 footwear exports are estimated at R4 million, the same as the figure for 1967.

253. As far as the domestic market for the products of this sector is concerned, private consumers are the most important. Domestic demand (excluding inventories) expands over the programming period by 4.1 per cent, 4.5 per cent and 4.9 per cent per annum respectively for the three different growth alternatives.

254. The intermediate demand is relatively small and represents mainly the purchases of footwear by the mines, as well as parts of shoes used by the footwear sector itself.

Table 7.10.2: Pattern of domestic consumption of footwear
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of 5%	5½%	6%
Total intermediate demand	3	4	4	4
Private consumption expenditure	70	89	91	93
Change in inventories	2	2	2	2
Total final domestic demand	72	91	93	95
Total domestic expenditure	75	95	97	99

255. With regard to capital formation, the aggregate gross capital formation in this sector over the six-year period from 1967 to 1973 is set at R25 million, R26 million and R28 million respectively for the three growth alternatives.

256. Employment in the footwear sector shows small increases, and for 1973 it is estimated at 8.4 per cent, 10.4 per cent and 11.2 per cent above the 1967 level for the 5, 5½ and 6 per cent growth alternatives respectively. In order to attain the higher production, the contribution per worker to the G.D.P. therefore increases by 2.4 per cent, 2.5 per cent and 2.7 per cent per annum for an annual increase in the real G.D.P. of 5, 5½ and 6 per cent respectively.

11. Wood and wood products
(I.S.I.C. 250)

257. This sector comprises saw mills, carpentry and joinery, the production of plywood, wood carving and wood turning, the preservation of wood, and the manufacturing of certain other timber products. (Wood pulp is not included in this sector but is classified under the paper and paper products sector).

258. The course of the index of physical volume of production for the period 1957 to 1967 as well as the growth of the sector over the programming period associated with an increase of 5½ per cent in the G.D.P., is shown graphically in Figure 7.11.

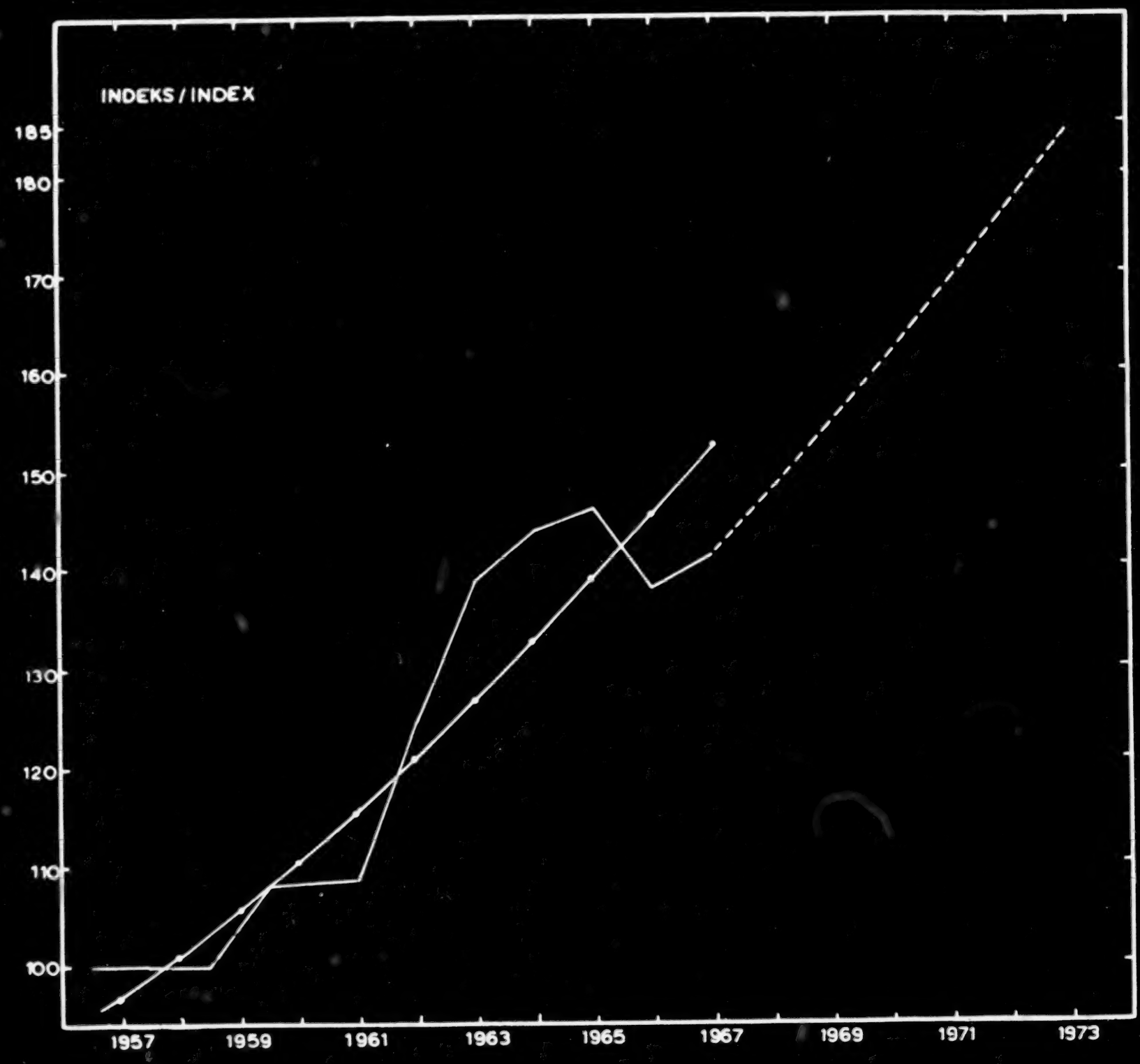

Fig. 7.11: Index of the physical volume of production of wood and wood products
1956/57 = 100

259. The volume of production expanded over the 11-year period 1957-1967 at an average rate of 4.7 per cent per annum, but the average annual increase was only 0.4 per cent over the last four years of the period. According to Table 7.11.1 average annual growth rates of 3.7 per cent, 4.5 per cent and 5.3 per cent are envisaged over the programming period for the 5, $5\frac{1}{2}$ and 6 per cent growth alternatives respectively. Imports amounted to R27 million in 1967 and for 1973 are estimated at R40 million, R41 million and R43 million for the three alternative growth rates respectively.

Table 7.11.1: Estimated development of the wood and wood products sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	132	164	173	180	3.7	4.5	5.3
Imports	27	40	41	43			
Total supply = total demand	159	204	214	223	4.2	5.1	5.8
Domestic demand (excluding inventories)	157	200	210	219	4.1	5.0	5.7
Change in inventories	-	2	2	2			
Exports	2	2	2	2			
Gross capital formation (total for the period)		153	164	176			
	Thousands						
Employment:							
Total	48	48	50	52	-0.1	0.7	1.2
White	5	5	5	5	-0.3	0.5	1.0
Non-White	43	43	45	47	-0.1	0.7	1.3
Growth rate in the contribution per worker to the G.D.P.					3.7	3.8	4.0

260. The exports of this sector are small and are set at a constant level of R2 million for the programming period.

261. The domestic demand (excluding inventories) is expected to increase at growth rates of 4.1 per cent, 5.0 per cent and 5.7 per cent, for the respective growth alternatives of 5, 5½ and 6 per cent in the real G.D.P.

262. According to Table 7.11.2, which indicates the domestic consumption pattern, the most important intermediate consumers of the products of this sector are the agricultural, forestry and fishing sector; the wood and wood products sector itself; the furniture sector; the construction sector, and miscellaneous services. The final domestic consumption is relatively small.

Table 7.11.2: Pattern of domestic consumption of wood and wood products
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of 5%	5½%	6%
Agriculture, forestry and fishing	14	16	16	17
Wood and wood products	25	30	32	33
Furniture	14	18	18	18
Construction .	65	85	92	97
Miscellaneous services	9	13	13	13
Other sectors	25	30	31	33
Total intermediate demand	152	192	202	211
Private consumption expenditure	4	4	4	4
Current expenditure by general government	3	4	4	4
Change in inventories	-	2	2	2
Total final domestic demand	7	10	10	10
Total domestic expenditure	159	202	212	221

263. As regards capital formation in the wood and wood products sector, it is estimated that capital formation to the value of R153 million, R164 million and R176 million will be required over the programming period for the 5, 5½ and 6 per cent growth alternatives respectively, to attain the estimated expansion in production.

264. As far as total employment in the wood and wood products sector is concerned it is expected to decrease by 0.1 per cent in the case of an annual expansion in the real G.D.P. of 5 per cent, and if the economy should expand at 5½ or 6 per cent, the corresponding increases in employment would be 0.7 per cent and 1.2 per cent per annum respectively. On the basis of the estimated expansion in production these changes in employment imply growth rates of 3.7 per cent, 3.8 per cent and 4.0 per cent per annum respectively in the contribution per worker to the G.D.P. for the three growth alternatives.

12. Furniture
(I.S.I.C. 260)

265. This sector comprises the manufacturing of all furniture, irrespective of the material from which it is made. In the figure below the index of the physical volume of production as well as the growth in the sector over the programming period associated with an increase of 5½ per cent in the real G.D.P., is shown graphically for the period 1957 to 1967.

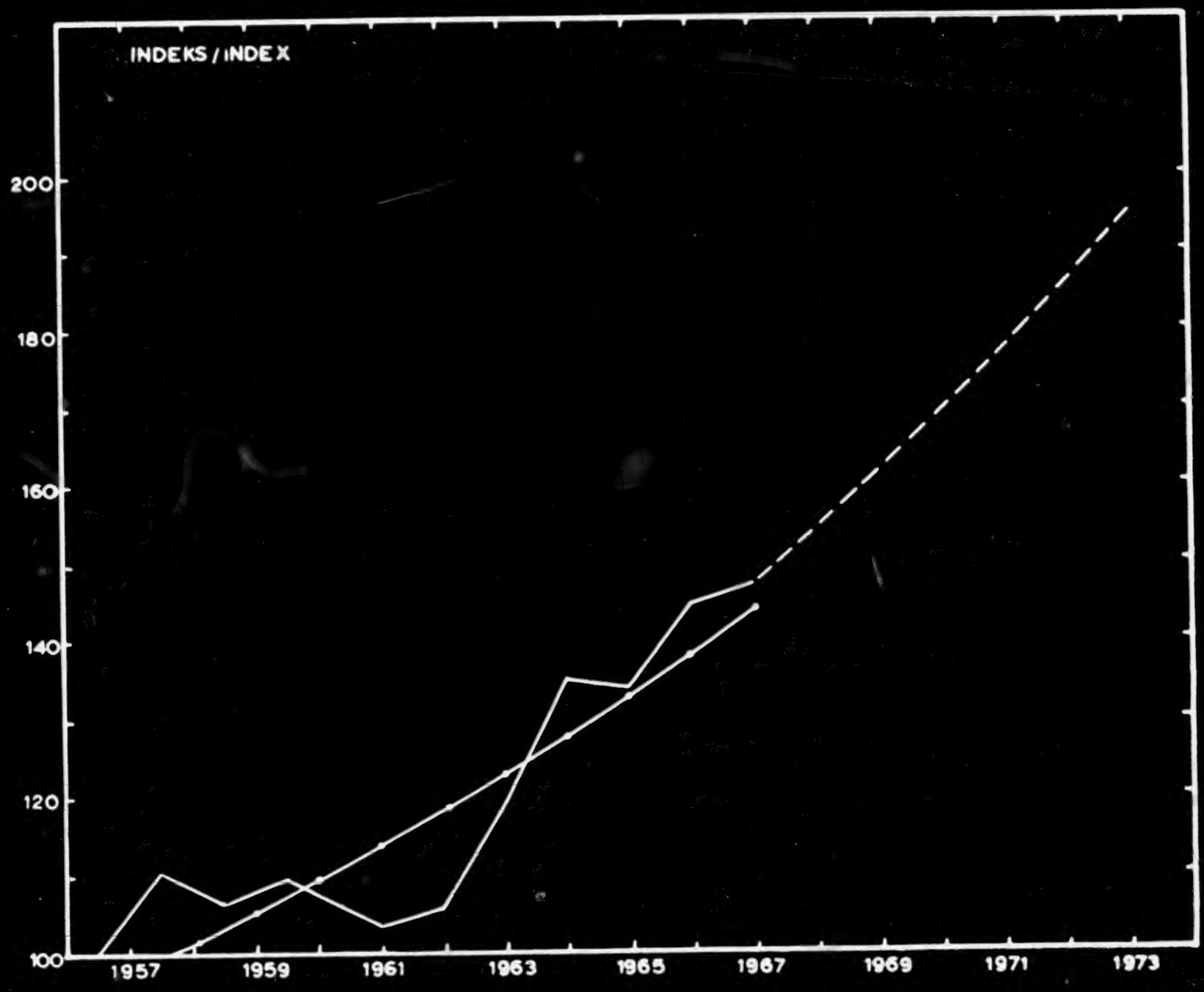

Fig. 7.12: Index of the physical volume of production of furniture
1956/57 = 100

266. The volume of production increased at an annual rate of 4.0 per cent over the period 1957-1967, while a higher growth rate of 5.5 per cent was realised from 1963, the base year of the first E.D.P., to 1967. According to Table 7.12.1 average annual growth rates of 4.2 per cent, 4.8 per cent and 5.2 per cent respectively are expected in the production of this sector for the three growth alternatives of 5, 5½ and 6 per cent in the real G.D.P. The value of the imports of furniture, which consist mainly of immigrant household effects, amounted to R9 million in 1967 and is estimated at R14 million, R15 million and R16 million respectively for the three growth alternatives of 5, 5½ and 6 per cent in the real G.D.P.

Table 7.12.1: Estimated development of the furniture sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	117	150	155	159	4.2	4.8	5.2
Imports	8	14	15	16			
Total supply = total demand	125	164	170	175	4.6	5.3	5.8
Domestic demand (excluding inventories)	120	156	162	167	4.5	5.1	5.7
Change in inventories	1	2	2	2			
Exports	4	6	6	6			
Gross capital formation (total for the period)		45	48	52			
	Thousands						
Employment:							
Total	27	33	34	35	3.2	3.7	3.9
White	5	6	7	7	2.8	3.3	3.5
Non-White	22	27	27	28	3.3	3.8	4.0
Growth rate in the contribution per worker to the G.D.P.					1.0	1.2	1.3

267. The domestic demand (excluding inventories) increases at rates that are slightly higher than that of production, namely 4.5 per cent, 5.1 per cent and 5.7 per cent for the 5, 5½ and 6 per cent growth alternatives respectively. From Table 7.12.2 it is clear that the final domestic demand is the most important market for the products of this sector. In 1967 it amounted to 81 per cent of the total domestic demand. The intermediate demand consists mainly of the repair of furniture. In 1967 the value of exports of furniture amounted to R4 million and is is estimated at R6 million for 1973.

Table 7.12.2: Pattern of domestic consumption of furniture
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of 5%	5½%	6%
Electrical machinery and equipment	3	5	5	5
Miscellaneous services	3	4	5	5
Office supplies	11	14	15	15
Other sectors	6	8	8	9
Total intermediate demand	23	31	33	34
Private consumption expenditure	90	115	119	123
Current expenditure by general government	7	10	10	10
Change in inventories	1	2	2	2
Total final domestic demand	98	127	131	135
Total domestic expenditure	121	158	164	169

268. In regard to capital formation in the furniture sector, it is estimated that gross capital formation to the amount of R45 million, R48 million and R52 million will be required over the programming period for the 5, 5½ and 6 per cent growth alternatives respectively to attain the estimated expansions in production.

269. In so far as employment in the furniture sector is concerned, the total number of employees will increase by 3.2 per cent, 3.7 per cent and 3.9 per cent per annum respectively for the three growth alternatives. On the basis of the estimated expansion in production these increases in employment imply a growth of 1.0 per cent, 1.2 per cent and 1.3 per cent per annum in the contribution per worker to the G.D.P. for the 5, 5½ and 6 per cent growth alternatives respectively.

13. Paper and paper products*
(I.S.I.C. 271 and 272)

270. The products of this sector are pulp, paper and paper board; paper bags, cardboard boxes and mounts; stationery; and other paper products. This sector comprises two main branches, namely on the one hand the paper mills, which manufacture pulp from wood and scrap paper, and convert such pulp into paper and paper board, and on the other hand those establishments that use paper and paper board as major raw materials in the manufacturing of paper bags, cardboard boxes, stationery and other paper products. The gross value of the output of the first-mentioned activity amounts to approximately 45 per cent of the total, while the manufacturing of packing materials comprises 65 per cent of the remaining 55 per cent.

271. The historical course of the volume of production for the period 1957-1967 and the projected production for the programming period corresponding to a growth rate of 5½ per cent in

the real G.D.P. are shown in Figure 7.13 below.

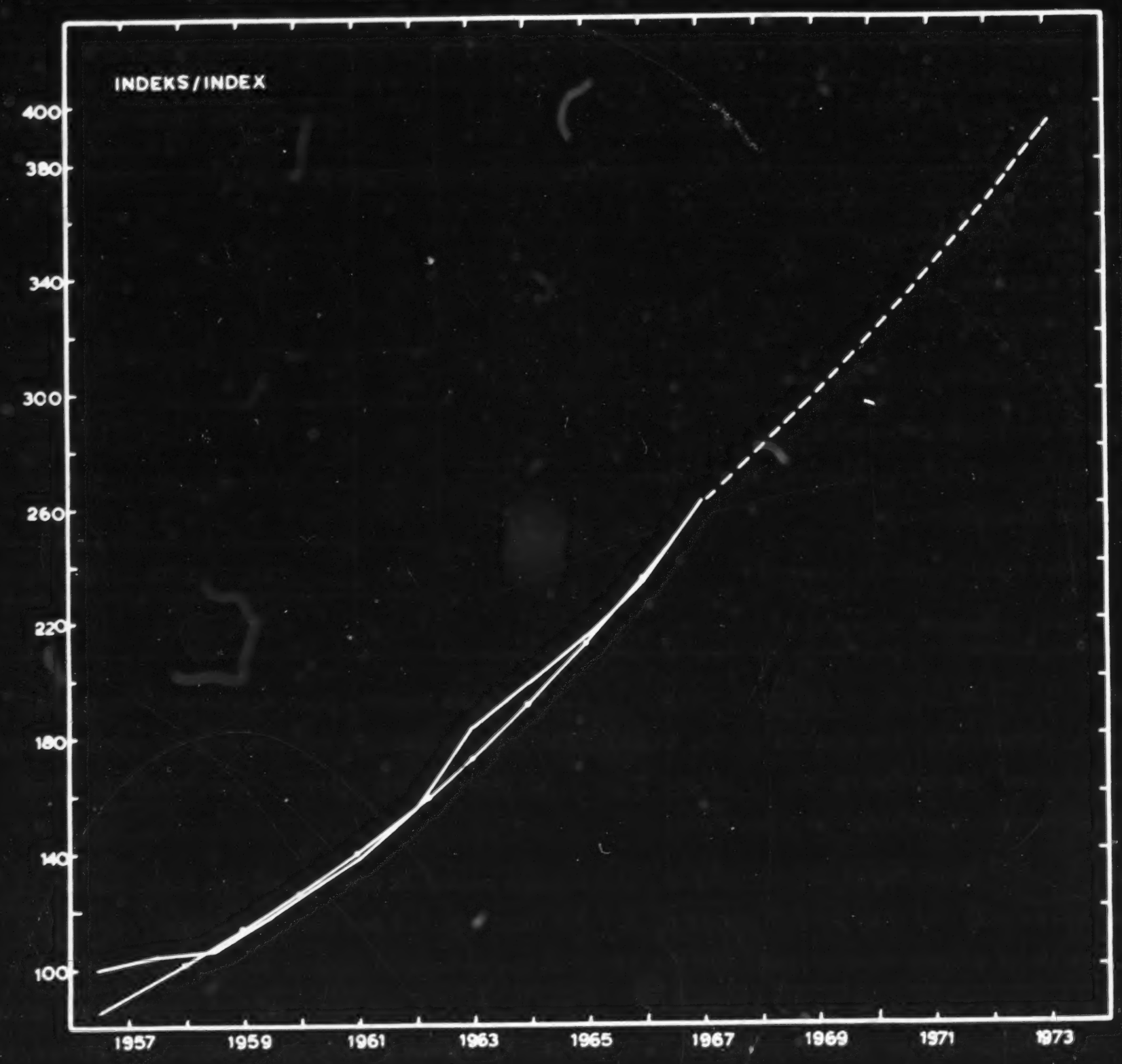

Fig. 7.13: Index of the physical volume of production of paper and paper products
1956/57 = 100

272. The calculated long term tendency for production is to increase at a rate of 11.0 per cent per annum, while it increased at a rate of 9.4 per cent over the four-year period 1963 to 1967. It is expected, however, that it will not be possible to maintain this high growth rate over the next six-year period. It is estimated that production will expand by 6.5 per cent, 7.0 per cent and 7.6 per cent per annum over the programming period for the 5, 5½ and 6 per cent growth rates in the G.D.P. respectively. As a result of the high capital expenditure required for an extension of the production capacity of this sector, expansion occurs in fits and starts. Members of the Sectoral Advisory Committee foresaw no major increase in the local production during the following three to four years, but important new projects may be expected toward the end of the programming period. The rate of expansion in the production of paper will be lower than planned until 1971, but after 1971 it will be appreciably higher. Although it is estimated that the local production of paper and paper products over the period 1967 to 1973 will increase at a

faster rate than that of the demand for the products of this sector, total output in 1973 will still be at a lower level than the local demand so that the shortage on the domestic market will have to be supplemented by imports. Imports increase by 3.0 per cent, 3.6 per cent and 4.2 per cent per annum for the 5, 5½ and 6 per cent growth alternatives respectively.

Table 7.13.1: Estimated development of the paper and paper products sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	208	304	312	322	6.5	7.0	7.6
Imports	47	56	58	60	3.0	3.6	4.2
Total supply = total demand	255	360	370	382	5.9	6.4	7.0
Domestic demand (excluding inventories)	225	315	324	335	5.8	6.3	6.9
Change in inventories	5	5	6	6			
Exports	25	40	40	41	8.1	8.1	8.6
Gross capital formation (total for the period)		303	323	347			
	Thousands						
Employment:							
Total	29	36	37	38	3.7	4.1	4.5
White	7	9	9	9	3.5	3.8	4.2
Non-White	22	27	28	29	3.8	4.2	4.6
Growth rate in the contribution per worker to the G.D.P.					2.8	2.9	3.1

273. Exports of the products of this sector increased at an average annual rate of 17.8 per cent over the period 1963 to 1967, and are expected to expand at a rate of 8.1 per cent for an increase of 5 and 5½ per cent in the real G.D.P., whereas it will advance at a rate of 8.6 per cent if the real G.D.P. should grow at 6 per cent per annum over the programming period. In 1967 paper pulp constituted 65 per cent of the total exports of this sector, paper and paper board 25 per cent and other paper products the remaining 10 per cent.

274. The final domestic demand for paper and paper products is relatively small. Since all sectors of the economy make use of paper and paper products in some form or other, the intermediate demand is the principal outlet for the products of this sector. The growth rates of the intermediate demand for the 5, 5½ and 6 per cent increases in the G.D.P. are calculated as 5.7 per cent, 6.2 per cent and 6.8 per cent respectively.

Table 7.13.2: Pattern of domestic consumption of paper and paper products
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of 5%	5½%	6%
Processed foodstuffs	19	25	25	26
Beverages and tobacco	6	8	8	9
Paper and paper products	60	86	89	91
Printing, publishing, etc.	35	50	52	54
Basic industrial chemicals	5	7	7	8
Miscellaneous chemicals	10	15	16	16
Non-metallic mineral products	6	9	9	10
Trade	18	23	24	25
Office supplies and services[1)]	34	46	48	49
Other sectors	27	38	38	39
Total intermediate demand	220	307	316	327
Private consumption expenditure	4	6	6	6
Current expenditure by general government	1	2	2	2
Change in inventories	5	5	6	6
Total final domestic demand	10	13	14	14
Total domestic expenditure	230	320	330	341

1) Paper used as stationery by all industries is included in this sector.

275. The main intermediate consumers of the products of this sector are the paper and paper products sector itself, and the printing and publishing sector, which uses the products mainly as raw materials; the trade and processed foodstuffs sectors, which use the products as packing materials; and the office supplies and services sector, which makes use chiefly of stationery.

276. Over the six-year period 1967-1973 this sector will require for the three alternative growth rates capital formation estimated at R303 million, R323 million and R347 million respectively to attain the expected expansion in production.

277. As regards employment in the paper and paper products sector, total employment increases by 3.7 per cent, 4.1 per cent and 4.5 per cent for the 5, 5½ and 6 per cent growth alternatives respectively, which is lower than the annual growth in production. The contribution per worker to the G.D.P. consequently increases by 2.8 per cent, 2.9 per cent and 3.1 per cent per annum for expansions in the real G.D.P. of 5, 5½ and 6 per cent respectively.

14. Printing, publishing and allied industries
(I.S.I.C. 280)

278. This sector embraces the printing, lithographing and publishing of newspapers, magazines, books and cards; book binding, as well as other related work, such as letter setting and gilding; and other services associated with the printing industry.

279. The index of the physical volume of production for the period 1957 to 1967 is presented graphically below. The projected growth which may be expected in the case of an expansion of the real G.D.P. by 5½ per cent up to 1973, is also indicated.

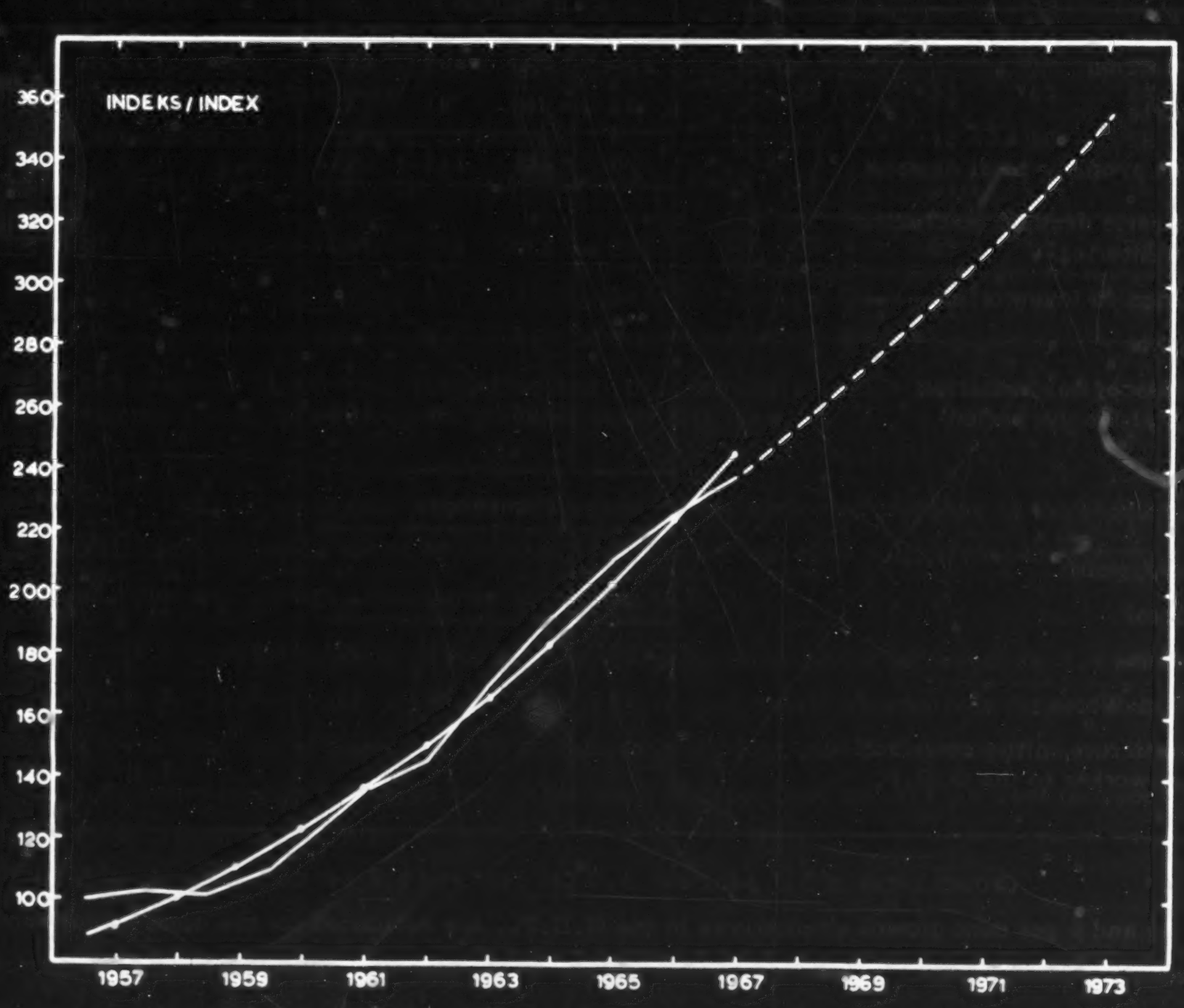

Fig. 7.14: Index of the physical volume of production of printing, publishing and allied industries (1956/57 = 100)

280. The volume of production of this sector increased on average by 10.5 per cent per annum over the period 1957 to 1967, while the average increase over the four year period 1963 to 1967 amounted to 8.8 per cent per annum. It may be observed from Table 7.14.1 that lower growth rates of 6.6 per cent, 6.9 per cent and 7.8 per cent respectively in the production of this sector are estimated for the 5, 5½ and 6 per cent growth alternatives over the programming period.

Imports amounted to R34 million in 1967 and it is expected to increase by R6 million (in the case of the 5 per cent growth alternative) to R8 million (for the 6 per cent growth alternative) over the programming period.

Table 7.14.1: Estimated development of the printing, publishing and allied industries sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	136	200	204	213	6.6	6.9	7.8
Imports	34	40	41	42			
Total supply = total demand	170	240	245	255	5.9	6.3	7.0
Domestic demand (excluding inventories)	165	230	235	245	5.7	6.0	6.8
Change in inventories	-2	1	1	1			
Exports	7	9	9	9			
Gross capital formation (total for the period)		90	96	103			
	Thousands						
Employment:							
Total	30	37	37	39	3.4	3.7	4.4
White	17	20	21	22	2.8	3.1	3.8
Non-White	13	17	16	17	4.2	4.4	5.1
Growth rate in the contribution per worker to the G.D.P.					3.1	3.2	3.4

281. Growth rates of 5.7 per cent, 6.0 per cent and 6.8 per cent respectively, for the 5, 5½ and 6 per cent growth alternatives in the G.D.P., are estimated for the domestic demand (excluding inventories). The sectors which are the major intermediate purchasers of the products of this sector, are trade, miscellaneous services and office supplies and services. As regards final domestic demand, private consumption expenditure is the most important component, contributing approximately 80 per cent to total final domestic demand. The exports of this sector are relatively small and in 1967 amounted to R7 million, while a figure of R9 million is expected for 1973.

Table 7.14.2: Pattern of domestic consumption of products of the printing, publishing and allied industries
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of 5%	5½%	6%
Trade	17	23	23	24
Miscellaneous services	9	12	13	13
Office supplies and services[1)]	73	99	103	107
Other sectors	11	15	15	15
Total intermediate demand	110	149	154	159
Private consumption expenditure	42	63	63	68
Current expenditure by the general government	13	18	18	18
Change in inventories	-2	1	1	1
Total final domestic demand	53	82	82	87
Total domestic expenditure	163	231	236	246

1) The products of printing, publishing and allied industries which are consumed by all manufacturing industries, are included under this item.

282. The gross capital formation required for the estimated increase in the production over the six-year period is set at R90 million, R96 million and R103 million respectively for the 5, 5½ and 6 per cent growth alternatives in the real G.D.P.

283. Total employment in the printing and publishing sector increases by 3.4 per cent, 3.7 per cent and 4.4 per cent, for the 5, 5½ and 6 per cent growth alternatives respectively, which is lower than the estimated rate of expansion in production. The contribution per worker to the G.D.P. consequently increases by 3.1 per cent, 3.2 per cent and 3.4 per cent respectively for the three growth alternatives.

15. Leather and leather products (I.S.I.C. 291 and 292)

284. The activities of this sector comprise tanning and fellmongering, as well as the manufacture of harness and saddlery, travel goods and other leather products, excluding footwear

285. The index of physical volume of production for the period 1957 to 1967 is shown in Figure 7.15 below. The projected curve for the programming period has been obtained by applying the annual growth rate in production, calculated for a growth rate of 5½ per cent in the G.D.P., to the 1967 index.

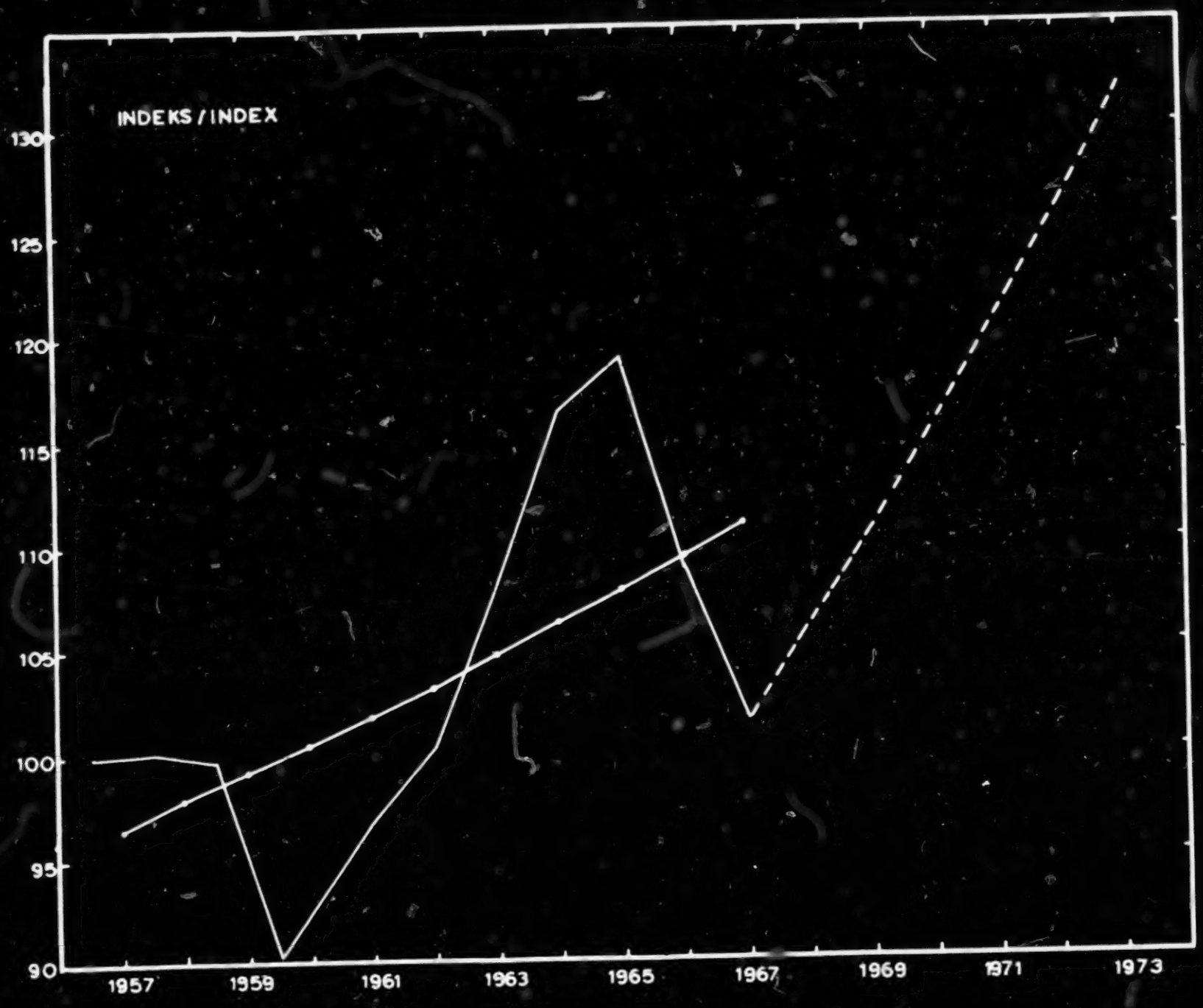

Fig. 7.15: Index of the physical volume of production of leather and leather products 1956/57 = 100

286. The long-term growth rate of the production of leather and leather products over the period 1957 to 1967 was 1.4 per cent per annum. During the first two years following 1963, the base year of the first E.D.P., production increased at an average rate of 5.1 per cent per annum, whereas a decline of 7.6 per cent per annum, on average, occurred during the next two years. The production of this sector accordingly showed an average decrease of 1.4 per cent per annum over the whole four-year period 1963 to 1967. From the low level of production in 1967, it is estimated that, for the programming period, production will increase by 3.9 per cent per annum if the G.D.P. should expand by 5 per cent and by 4.4 per cent per annum in the case of the $5\frac{1}{2}$ and 6 per cent growth alternatives. Imports amounted to R11 million in 1967 and are set at R13 million for 1973.

Table 7.15.1: Estimated development of the leather and leather products sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	27	34	35	35	3.9	4.4	4.4
Imports	11	13	13	13			
Total supply = total demand	38	47	48	48	3.6	4.0	4.0
Domestic demand (excluding inventories)	37	46	47	47	3.7	4.1	4.1
Change in inventories	-		-				
Exports	1	1	1	1			
Gross capital formation (total for the period)		2	2	2			
	Thousands						
Employment:							
Total	6	7	7	8	2.3	2.6	2.9
White	1	1	1	1	0.6	0.9	1.1
Non-White	5	6	6	7	2.5	2.9	3.1
Growth rate in the contribution per worker to the G.D.P.					1.6	1.7	1.8

287. The domestic demand (excluding inventories) is expected to increase by 3.7 per cent per annum if the real G.D.P. should grow at 5 per cent and by 4.1 per cent in the case of the 5½ and 6 per cent growth alternatives. The major intermediate consumers, as shown in Table 7.15.2, are the footwear sector and the agriculture, forestry and fisheries sector.

288. The exports of leather and leather products are small and amounted to only R1 million in 1967. No change is foreseen over the programming period.

Table 7.15.2: Pattern of domestic consumption of leather and leather products
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of 5%	5½%	6%
Agriculture, forestry and fishing	9	11	11	11
Footwear	19	23	24	24
Other sectors	3	5	5	5
Total intermediate demand	31	39	40	40
Private consumption expenditure	6	7	7	7
Change in inventories	-	-	-	-
Total final domestic demand	6	7	7	7
Total domestic expenditure	37	46	47	47

289. The gross capital formation required over the six-year period for the estimated expansion in production is set at only R2 million.

290. As regards employment in the leather and leather products sector, the total number of employees will increase by 2.3 per cent, 2.6 per cent and 2.9 per cent per annum for the three growth alternatives in the G.D.P. On the basis of the estimated expansion in the production, this increase in employment implies growth rates of 1.6 per cent, 1.7 per cent and 1.8 per cent per annum in the contribution per worker to the G.D.P. for the three alternative growth rates respectively.

16. Rubber products* (I.S.I.C. 300)

291. This sector embraces the manufacturing of tyres and tubes and other rubber products, as well as the vulcanising of tyres and the recovery of rubber from old tyres or other waste rubber. The contribution to the total production by the manufacturers of tyres and tubes amounts to approximately 55 per cent and that of manufactures of other rubber products to 30 per cent, while the vulcanisers contribute 15 per cent.

292. The index of the physical volume of production for the eleven-year period 1957 to 1967 as well as the projections for a 5½ per cent growth in the G.D.P. are reflected in Figure 7.16 below.

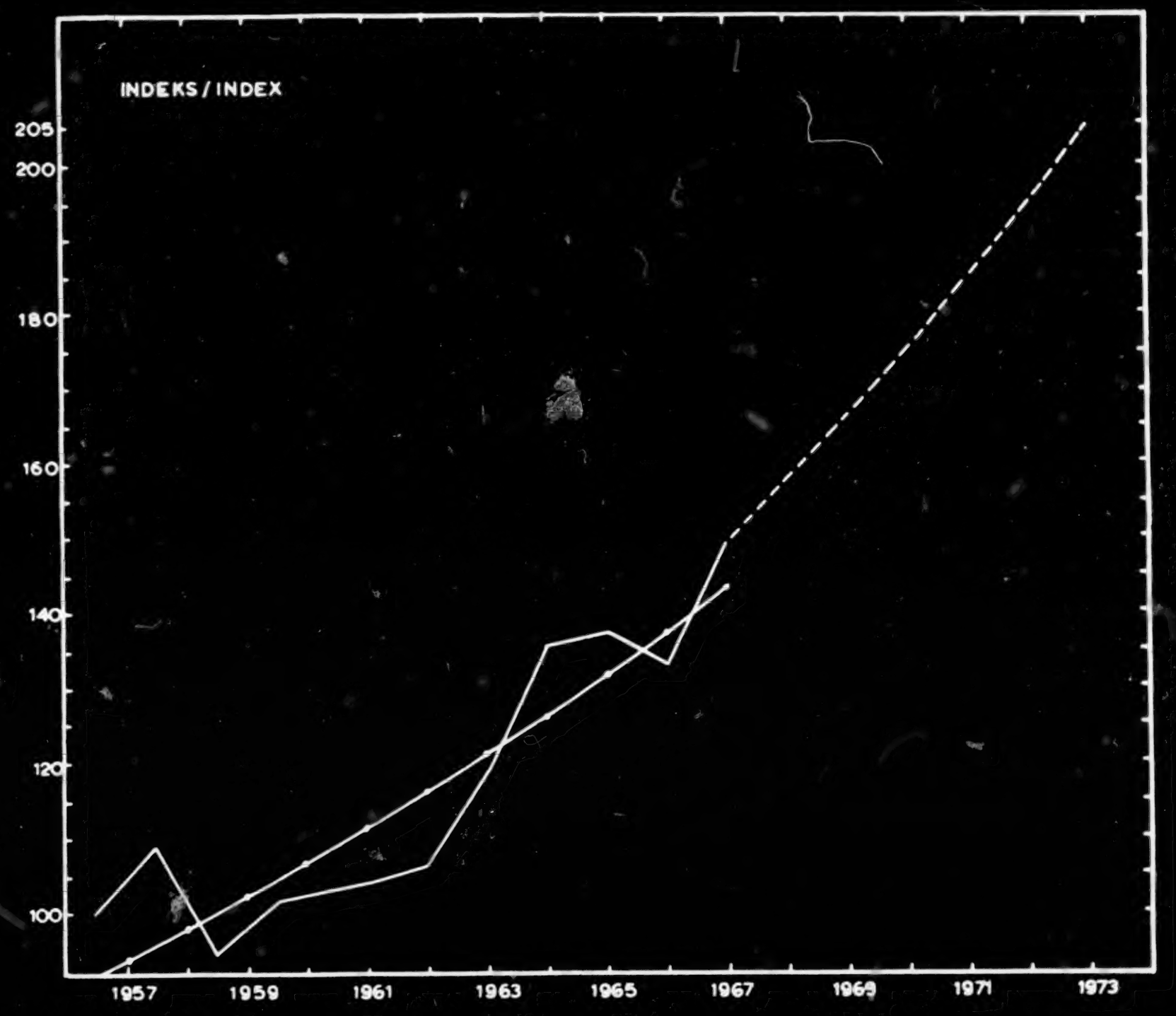

Fig. 7.16: Index of the physical volume of production of rubber products
1956/57 = 100

293. The production of rubber products is expected to grow by 4.6 per cent, 5.4 per cent and 6.0 per cent per annum respectively for the 5, 5½ and 6 per cent growth alternatives in the G.D.P. The growth rate associated with an expansion of 5 per cent in the G.D.P., does not deviate materially from the annual long-term growth rate of 4.3 per cent, while the expansion associated with a 6 per cent growth in the G.D.P. more or less corresponds with the observed growth rate in production over the four-year period 1963 to 1967. Since 1963 the imports of rubber products fluctuated around an average of R10 million. For 1967, the base year of this E.D.P., imports amounted to R12 million, and the same level of imports is expected to be realised in 1973. The Sectoral Advisory Committee was of the opinion that most of the imported products could be manufactured locally.

Table 7.16.1: Estimated development of the rubber products sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	116	152	159	165	4.6	5.4	6.0
Imports	12	12	12	12			
Total supply = total demand	128	164	171	177	4.2	4.9	5.6
Domestic demand (excluding inventories)	120	155	162	168	4.4	5.1	5.8
Change in inventories	2	2	2	2			
Exports	6	7	7	7			
Gross capital formation (total for the period)		81	87	93			
	Thousands						
Employment:							
Total	17	19	20	20	1.5	2.2	2.7
White	5	5	5	5	-0.3	0.5	0.9
Non-White	12	14	15	15	2.1	2.9	3.3
Growth rate in the contribution per worker to the G.D.P.					3.1	3.2	3.4

294. The domestic demand (excluding inventories) is expected to grow by 4.4 per cent, 5.1 per cent and 5.8 per cent per annum over the programming period for rates of expansion in the G.D.P. of 5, 5½ and 6 per cent respectively.

295. It may be observed from Table 7.16.2 showing the pattern of domestic demand, that approximately one-quarter of the supply of rubber products in 1967 was absorbed by the final domestic demand, and it is estimated that this demand will increase by 4.4 per cent, 5.5 per cent and 5.9 per cent per annum for the respective growth rates in the G.D.P. The intermediate demand is the most important market for the products of this sector, taking approximately two-thirds of the supply of rubber products in 1967. The intermediate demand grows at a slower rate than the final domestic demand and the former is expected to expand by 4.3 per cent, 4.9 per cent and 5.6 per cent per annum respectively, over the programming period, for the three growth alternatives. The major intermediate consumers of tyres and tubes are the motor vehicles sector, the transport and communications sector, the trade sector and the office supplies and services sector, whereas the gold mining sector, the footwear sector and the rubber sector itself are major consumers of other rubber products.

Table 7.16.2: The pattern of domestic consumption of rubber products
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of		
		5%	5½%	6%
Gold mining	5	5	5	6
Footwear	4	5	5	6
Rubber products	7	8	8	9
Motor vehicles	16	24	25	27
Trade	5	7	7	7
Transport and communication	16	20	20	21
Office supplies and services[1)]	20	25	26	27
Other sectors	15	19	21	19
Total intermediate demand	88	113	117	122
Private consumption expenditure	27	35	38	39
Current expenditure by general government	5	7	7	7
Change in inventories	2	2	2	2
Total final domestic demand	34	44	47	48
Total domestic expenditure	122	157	164	170

1) Tyres consumed by the administrative and sales divisions of industries are included under this item.

296. The exports of rubber products, of which one-half consisted of tyres and tubes, amounted to R6 million in 1967 and are set at R7 million in 1973.

297. As regards the capital formation in the rubber products sector, it is estimated that R81 million, R87 million and R93 million respectively will be required in gross capital formation over the programming period, to realise the estimated expansion in production for the three alternative growth rates in the G.D.P.

298. The increase in total employment is estimated at 1.5 per cent, 2.2 per cent and 2.7 per cent per annum, on average, for the respective growth rates of 5, 5½ and 6 per cent over the period 1967 to 1973. These figures imply increases in the contribution per worker to the G.D.P. of 3.1 per cent, 3.2 per cent and 3.4 per cent per annum, for the three growth alternatives respectively.

17. Basic industrial chemicals*
(I.S.I.C. 311)

299. This sector includes only basic industrial chemicals, such as fertilizers, explosives and carbides, wattle extract, acids, alkalis, mineral oxides and salts, plastics, synthetic fibres and synthetic rubber. The production of fertilizers amounts to approximately one-third, and of explosives to one-fifth of the total production, while the remainder consists of a variety of industrial chemicals.

300. In Figure 7.17 the index of physical volume of production is shown for the period 1957 to 1967. The projection from 1968 to 1973 is based on the assumption of a $5\frac{1}{2}$ per cent growth in the Gross Domestic Product.

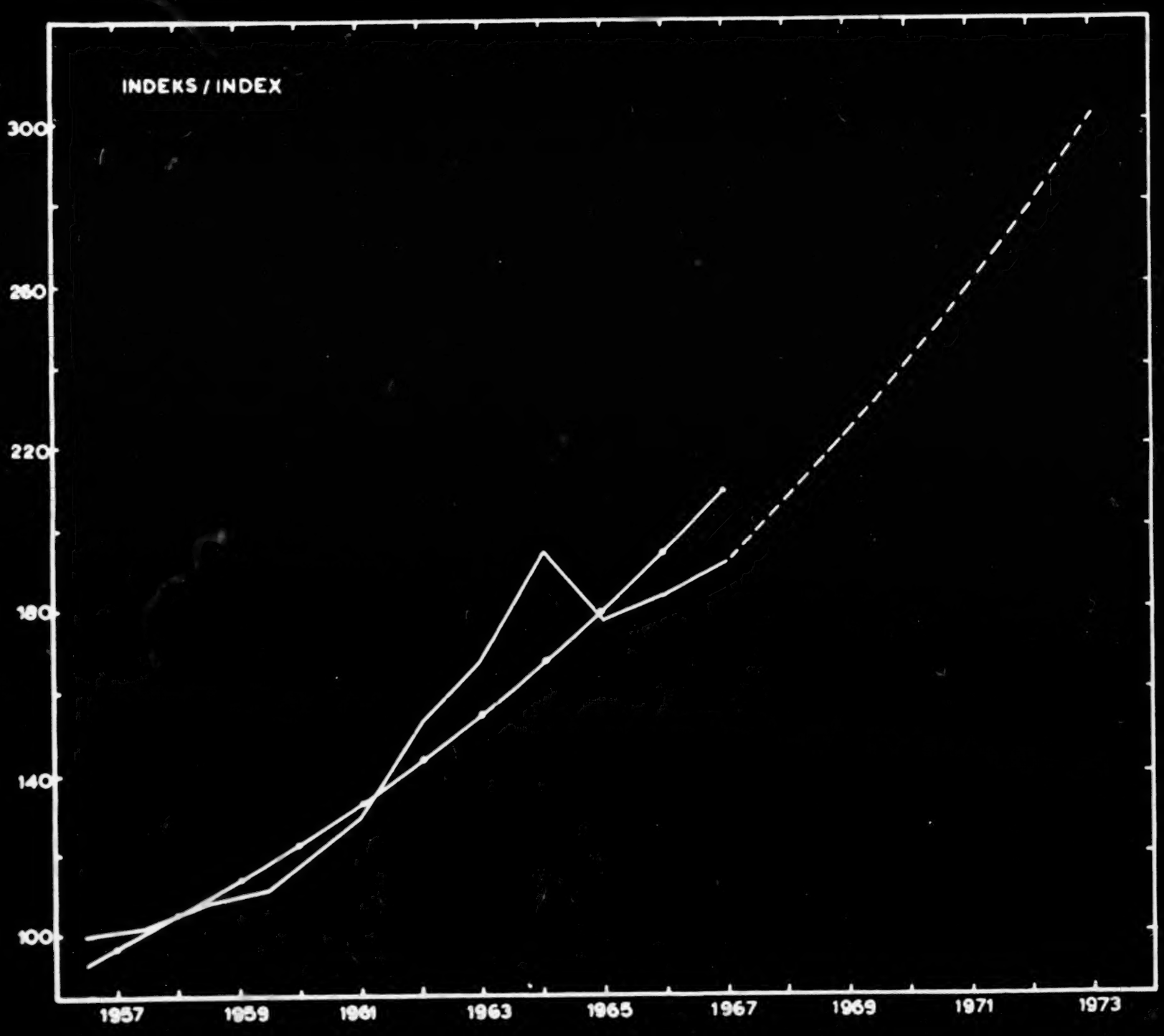

Fig. 7.17: Index of the physical volume of production of basic industrial chemicals
1956/57 = 100

301. The average annual increase in the volume of production was 8.0 per cent between 1957 and 1967, whereas the growth rate in the actual production from 1963, the base year of the first E.D.P., to 1967 was only 3.4 per cent. It is expected however that the production of basic

chemicals will grow at a higher rate over the six-year period 1967-1973 than the average rate of expansion realised over the past four years, and that it will be closer to the long-term rate of 8.0 per cent. The production of this sector, as shown in Table 7.17.1, is expected to increase by 7.4 per cent, 7.8 per cent and 8.1 per cent from 1967 to 1973, which is higher than the corresponding general growth rates in the economy of 5, 5½ and 6 per cent per annum. Over the past four years the imports of basic chemicals have increased at an average rate of 14.3 per cent per annum. For 1967, the base year of this E.D.P., imports amounted to R146 million. This high level of imports could be attributed, among other things, to the importation of strategic basic chemicals. As the production of most of the basic industrial chemicals still imported, requires large capital investment and consequently production on a very large scale, import replacement for these basic chemicals is becoming increasingly difficult. In 1967 imports of basic industrial chemicals, which amounted to R146 million, were equal to 76 per cent of the local production, and for 1973 this ratio is set at approximately 57 per cent.

Table 7.17.1: The estimated development of the basic industrial chemicals sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	192	295	301	307	7.4	7.8	8.1
Imports	146	167	173	179	2.3	2.9	3.5
Total supply = total demand	338	462	474	486	5.3	5.8	6.2
Domestic demand (excluding inventories)	283	410	422	433	6.4	6.9	7.3
Change in inventories	18	6	7	7			
Exports	37	46	45	46	3.7	3.3	3.7
Gross capital formation (total for the period)		187	200	215			
	Thousands						
Employment:							
Total	28	29	29	30	0.8	1.1	1.3
White	8	8	8	8	0.3	0.5	0.7
Non-White	20	21	21	22	1.1	1.3	1.5
Growth rate in the contribution per worker to the G.D.P.					6.6	6.7	6.9

302. According to Table 7.17.2, which shows the domestic consumption pattern, the intermediate demand is the most important consumer of the products of this sector. In 1967 it constituted 88 per cent of the total domestic expenditure on these products. The projected growth

rates in the intermediate demand, corresponding to the three general growth alternatives, are 6.5 per cent, 7.0 per cent and 7.5 per cent per annum respectively.

Table 7.17.2: Domestic consumption pattern of basic industrial chemicals
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of		
		5%	5½%	6%
Agriculture, forestry and fishing	59	81	84	84
Gold mining	37	39	39	39
Other mining and quarrying	11	16	16	17
Processed foodstuffs	5	6	7	7
Textiles	14	22	22	23
Paper and paper products	6	9	9	10
Rubber products	12	16	17	17
Basic industrial chemicals	40	67	67	70
Miscellaneous chemicals	25	41	42	44
Non-metallic mineral products	4	6	6	6
Metal products	3	5	5	5
Electrical equipment and machinery	6	10	10	11
Miscellaneous manufacturing	20	35	35	36
Construction	4	6	7	8
Other sectors	20	30	34	34
Total intermediate demand	266	389	400	411
Private consumption expenditure	5	9	10	10
Current expenditure by general government	12	12	12	12
Change in inventories	18	6	7	7
Total final domestic demand	35	27	29	29
Total domestic expenditure	301	416	429	440

303. All the sectors distinguished consume basic industrial chemicals, but the most important intermediate consumers are agriculture, which uses fertilizers; the three mining sectors, using explosives; the rubber sector, in which synthetic rubber, plastics and other chemicals are used; and the textile, basic industrial chemicals, and miscellaneous chemicals sectors, which use a variety of chemicals in their production processes.

304. Exports amounted to R37 million in 1967. Slightly more than half of the exports consisted of tanning extract, explosives and fertilizers, while the other half included a variety of other industrial chemicals. As a result of the competition in the foreign market referred to above, and in view of the fact that most of the adjoining territories are establishing their own fertilizer industries, the expansion in exports of basic chemicals is set at 3.7 per cent, 3.3 per

cent and 3.7 per cent per annum over the programming period for the 5, 5½ and 6 per cent growth alternatives respectively.

305. The total gross capital formation required by this sector to attain the estimated increases in production corresponding to the three alternative growth rates, amount to R187 million, R200 million and R215 million respectively for the programming period.

306. Total employment in this sector increases on average by 0.8 per cent, 1.1 per cent and 1.3 per cent per annum respectively for the 5, 5½ and 6 per cent growth rates in the real G.D.P. These advances imply expansions of 6.6 per cent, 6.7 per cent and 6.9 per cent per annum in the contribution per worker to the G.D.P. for the three growth alternatives respectively.

18. Miscellaneous chemicals (I.S.I.C. 312 and 319)

307. This sector manufactures a wide variety of products, such as vegetable and animal oils; oil cake and oil meal; candles; cosmetics, soap and detergents; paint, varnishes and lacquers; polish, dyes and ink; drugs and pharmaceutical preparations; disinfectants and insecticides; and matches.

308. The manufacture of medicinal and pharmaceutical preparations is the major activity of this sector and contributes approximately 28 per cent to the total production; this is followed by soap and candles with a contribution of approximately 23 per cent, and paints with 20 per cent. Vegetable and animal oils contribute approximately 8 per cent to the total production and disinfectants 9 per cent, while the other industries are responsible for the remaining 12 per cent.

309. The indices of the physical volume of production of mescellaneous chemicals for the period 1957 to 1967 are shown graphically in the figure below. The growth in the sector over the programming period, associated with an increase of 5½ per cent in the real G.D.P., is also indicated.

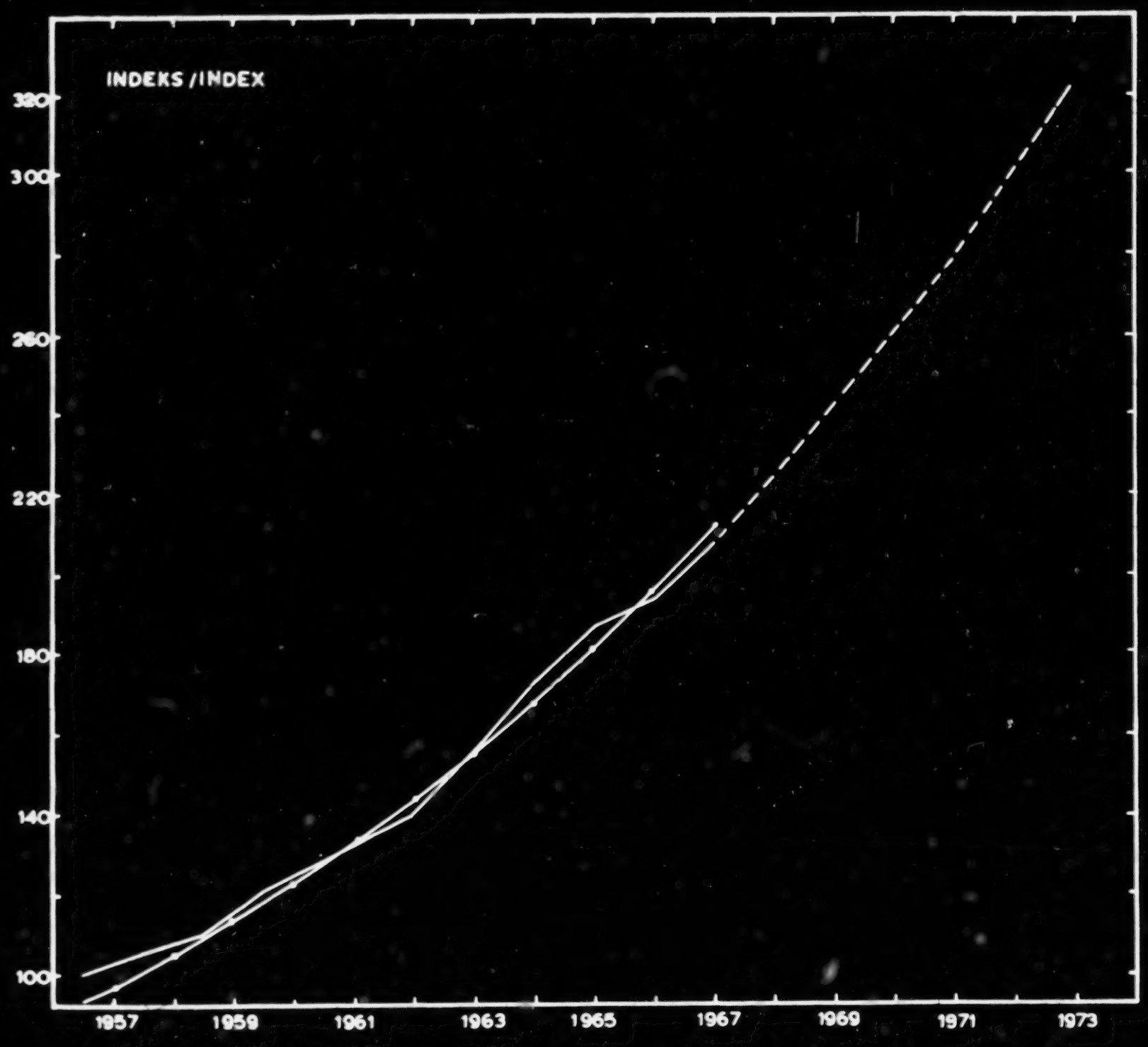

Fig. 7.18: Index of the physical volume of production of miscellaneous chemicals 1956/57 = 100

310. Production increased over the period 1956/57 to 1967 at an average rate of 8.1 per cent per annum, while the average annual increase from 1963 to 1967 approximately equalled this performance.

311. Table 7.18.1 shows that the growth in the production of miscellaneous chemicals for the 5 and 5½ per cent growth alternatives in the G.D.P., is expected to be lower over the programming period than that realised in the past, namely 6.8 per cent and 7.6 per cent respectively, while a growth rate of 8.4 per cent is expected in the case of the 6 per cent growth alternative. It is, furthermore, estimated that imports of miscellaneous chemicals will increase by 5.4 per cent, 5.9 per cent and 6.5 per cent per annum for the 5, 5½ and 6 per cent growth alternatives respectively over the programming period.

Table 7.18.1: Estimated development of the miscellaneous chemicals sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	257	382	401	418	6.8	7.6	8.4
Imports	54	74	76	79	5.4	5.9	6.5
Total supply = total demand	311	456	477	497	6.6	7.4	8.1
Domestic demand (excluding inventories)	298	419	437	455	5.8	6.6	7.3
Change in inventories	-1	13	16	17			
Exports	14	24	24	25			
Gross capital formation (total for the period)		153	164	176			
	Thousands						
Employment:							
Total	29	35	37	38	3.0	3.9	4.4
White	10	12	13	13	2.0	3.0	3.5
Non-White	19	23	24	25	3.5	4.3	4.9
Growth rate in the contribution per worker to the G.D.P.					3.6	3.8	4.0

312. The growth rates in the domestic demand (excluding inventories) for the three growth alternatives of 5, 5½ and 6 per cent in the G.D.P. amount to 5.8 per cent, 6.6 per cent and 7.3 per cent respectively. According to Table 7.18.2, showing the pattern of domestic demand, the intermediate demand constituted 52 per cent of the total domestic demand in 1967. The major intermediate consumers of the products of the sector are the agriculture, forestry and fishing sector (vaccines, paints, etc.), the processed foodstuffs sector, the miscellaneous chemicals sector itself, the construction sector (mainly paint) and the miscellaneous services sector.

313. The exports of miscellaneous chemicals are set at R24 million for 1973 in the case of the 5 and 5½ per cent growth alternatives and R1 million more for the 6 per cent growth alternative. This compares with an export figure of R14 million for the products of this sector in 1967.

Table 7.18.2: The pattern of domestic consumption for miscellaneous chemicals
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of		
		5%	5½%	6%
Agriculture, forestry and fishing	11	14	14	14
Processed foodstuffs	13	17	17	17
Paper and paper products	4	6	6	6
Basic industrial chemicals	7	11	11	11
Miscellaneous chemicals	39	58	60	63
Metal products	5	8	8	8
Motor vehicles	5	7	8	8
Construction	18	25	26	28
Trade	5	7	7	7
Miscellaneous services	16	22	23	23
Other sectors	30	38	41	44
Total intermediate demand	153	213	221	229
Private consumption expenditure	128	178	188	197
Current expenditure by general government	17	28	28	29
Change in inventories	-1	13	16	17
Total final domestic demand	144	219	232	243
Total domestic expenditure	297	432	453	472

314. To realise the high projected growth in the production of this sector, it is estimated that gross capital formation amounting to R153 million, R164 million and R176 million will be required over the programming period for the 5, 5½ and 6 per cent growth alternatives respectively.

315. As far as employment in the miscellaneous chemicals sector is concerned, total employment expands by 3.0 per cent, 3.9 per cent and 4.4 per cent for increases in the G.D.P. of 5, 5½ and 6 per cent respectively which is lower than the annual increases in production. The contribution per worker to the G.D.P. accordingly increases by 3.6 per cent, 3.8 per cent and 4.0 per cent per annum for the three growth alternatives in the G.D.P. respectively.

19. Non-metallic mineral products
(I.S.I.C. 331 to 339)

316. This sector comprises the manufacturing of bricks, tiles, earthenware and pottery, glass and glass products, cement, plaster and composition boards. It also includes modelling in cement, lime burning, and the manufacture of stone and marble products.

317. In the figure below the index of physical volume of production is shown for the

period 1956/57 to 1967 as well as the growth of the sector over the programming period corresponding with a 5½ per cent increase in the real G.D.P.

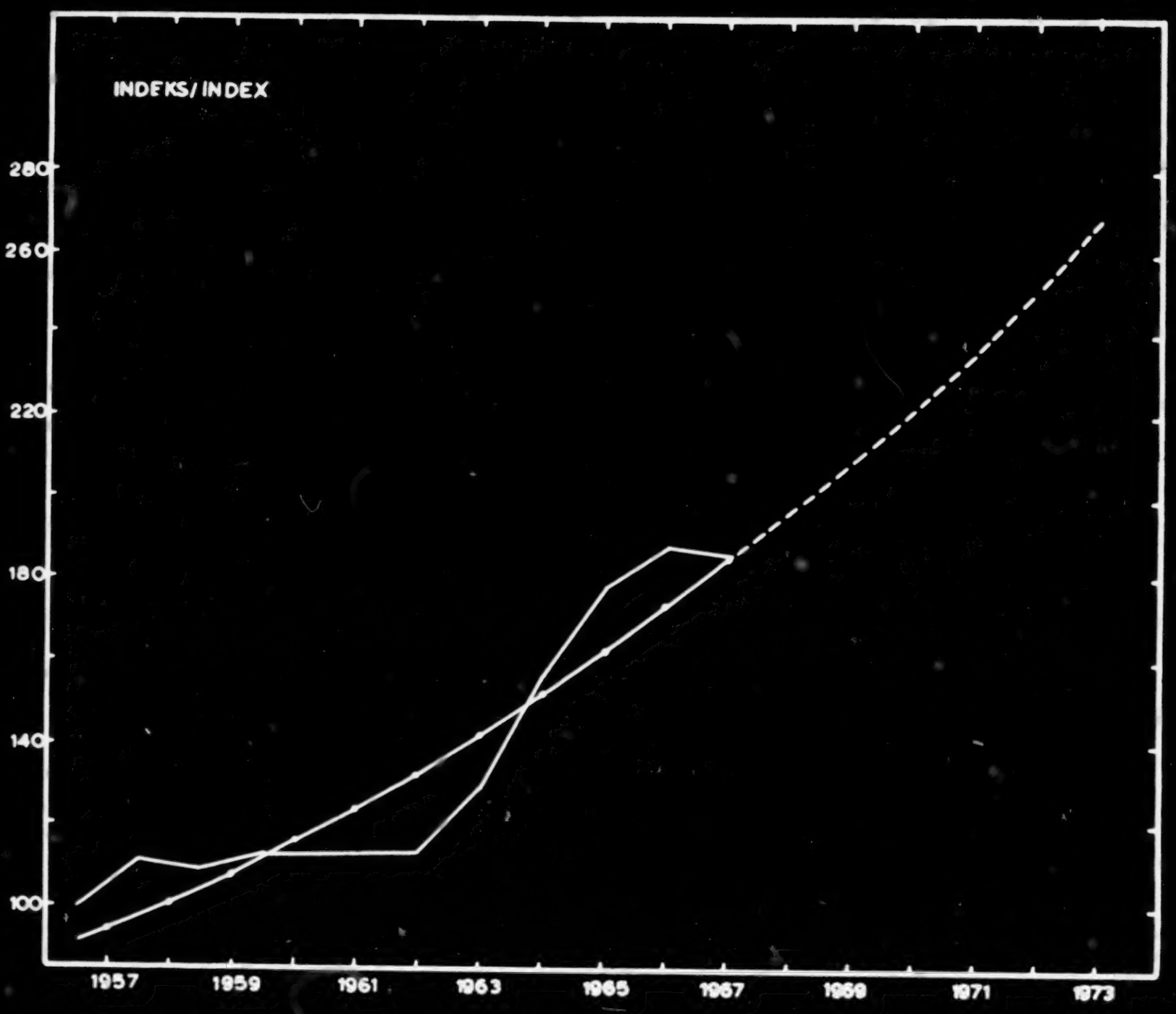

Fig. 7.19: Index of the physical volume of production of non-metallic mineral products 1956/57 = 100

318. The volume of production increased at an average rate of 7.0 per cent over the period 1956/57 to 1967. From 1963, the base year of the first E.D.P., production rose sharply until 1966 and then decreased by 1.7 per cent in 1967. Despite the decline in 1967, the average growth rate was nevertheless as high as 9.7 per cent for the four-year period 1963 to 1967.

319. According to Table 7.19.1 an average annual growth rate of 5.4 per cent, 6.4 per cent and 7.1 per cent in the production of this sector is envisaged during the programming period for the 5, 5½ and 6 per cent growth alternatives respectively. The imports of the products of this sector amounted to R25 million in 1967, and it is expected that the imports will be higher in 1973 by amounts ranging from R3 million (for the 5 per cent growth alternative) to R5 million (for the 6 per cent growth alternative).

Table 7.19.1: Estimated development of the non-metallic mineral products sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	236	324	342	357	5.4	6.4	7.1
Imports	25	28	29	30			
Total supply = total demand	261	352	371	387	5.1	6.0	6.8
Domestic demand (excluding inventories)	248	335	353	369	5.1	6.0	6.8
Change in inventories	5	3	4	4			
Exports	8	14	14	14			
Gross capital formation (total for the period)		196	209	225			
	Thousands						
Employment:							
Total	80	96	100	104	3.0	3.8	4.4
White	14	17	17	18	2.8	3.6	4.2
Non-White	66	79	83	86	3.0	3.8	4.4
Growth rate in the contribution per worker to the G.D.P.					2.5	2.6	2.8

320. It is expected that for the 5, 5½ and 6 per cent growth alternatives the domestic demand (excluding inventories) will grow at the rate of 5.1 per cent, 6.0 per cent and 6.8 per cent respectively over the six-year period 1967 to 1973. Intermediate demand is the most important market of this sector and accounted for 92 per cent of the total domestic demand in 1967.

321. The principal intermediate consumer of the products of this sector is the construction sector, which uses building bricks, tiles, cement, glass, earthenware and cement pipes and fittings, etc., in its building and construction activities. More than half of the intermediate demand is exercised by the construction sector. Other important intermediate consumers are the "real estate" activities of the miscellaneous services sector in which the products of this sector are used for the maintenance of rented buildings; and the non-metallic mineral sector itself, which consumes non-metallic mineral products in its own production processes. The final domestic demand is relatively small and shows a moderate increase over the programming period.

322. Exports of this sector amounted to R8 million in 1967 and are set at R14 million in 1973.

Table 7.19.2: Domestic consumption pattern of non-metallic mineral products
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of 5%	5½%	6%
Agriculture, forestry and fishing	5	7	7	7
Beverages and tobacco	5	6	6	6
Miscellaneous chemicals	5	7	8	8
Non-metallic mineral products	15	21	22	23
Electrical machinery and equipment	4	6	6	7
Motor vehicles	7	11	11	12
Construction	136	185	197	209
Miscellaneous services	25	34	35	36
Other sectors	30	38	41	41
Total intermediate demand	232	315	333	349
Private consumption expenditure	8	8	8	8
Current expenditure by general government	8	12	12	12
Change in inventories	5	3	4	4
Total final domestic demand	21	23	24	24
Total domestic expenditure	253	338	357	373

323. The gross capital formation required by this sector over the whole six-year period, is estimated at R196 million, R209 million and R225 million for the 5, 5½ and 6 per cent growth alternatives respectively.

324. As regards employment in the non-metallic mineral sector, total employment will increase for the three growth alternatives by 3.0 per cent, 3.8 per cent and 4.4 per cent per annum respectively. On the basis of the estimated expansion in production this increase in employment implies a growth rate of 2.5 per cent, 2.6 per cent and 2.8 per cent respectively in the contribution per worker to the G.D.P. for the three growth alternatives.

20. Basic steel products*
(I.S.I.C. 341)

325. The activities of this sector comprise the manufacturing of iron and steel. It embraces the entire production process, from the smelting in the blast furnaces to the semi-finished stage, i.e. the production of billets, blooms, slabs or bars; the re-rolling of steel into basic forms such as sheets, plates, rails, rods and strips; tinplate; rough castings; and forgings.

326. The rapid rate of expansion in the production of these products in the past, as well as the expected rapid future growth in the production associated with a growth rate of 5½ per cent in the G.D.P., are reflected in Figure 7.20 below.

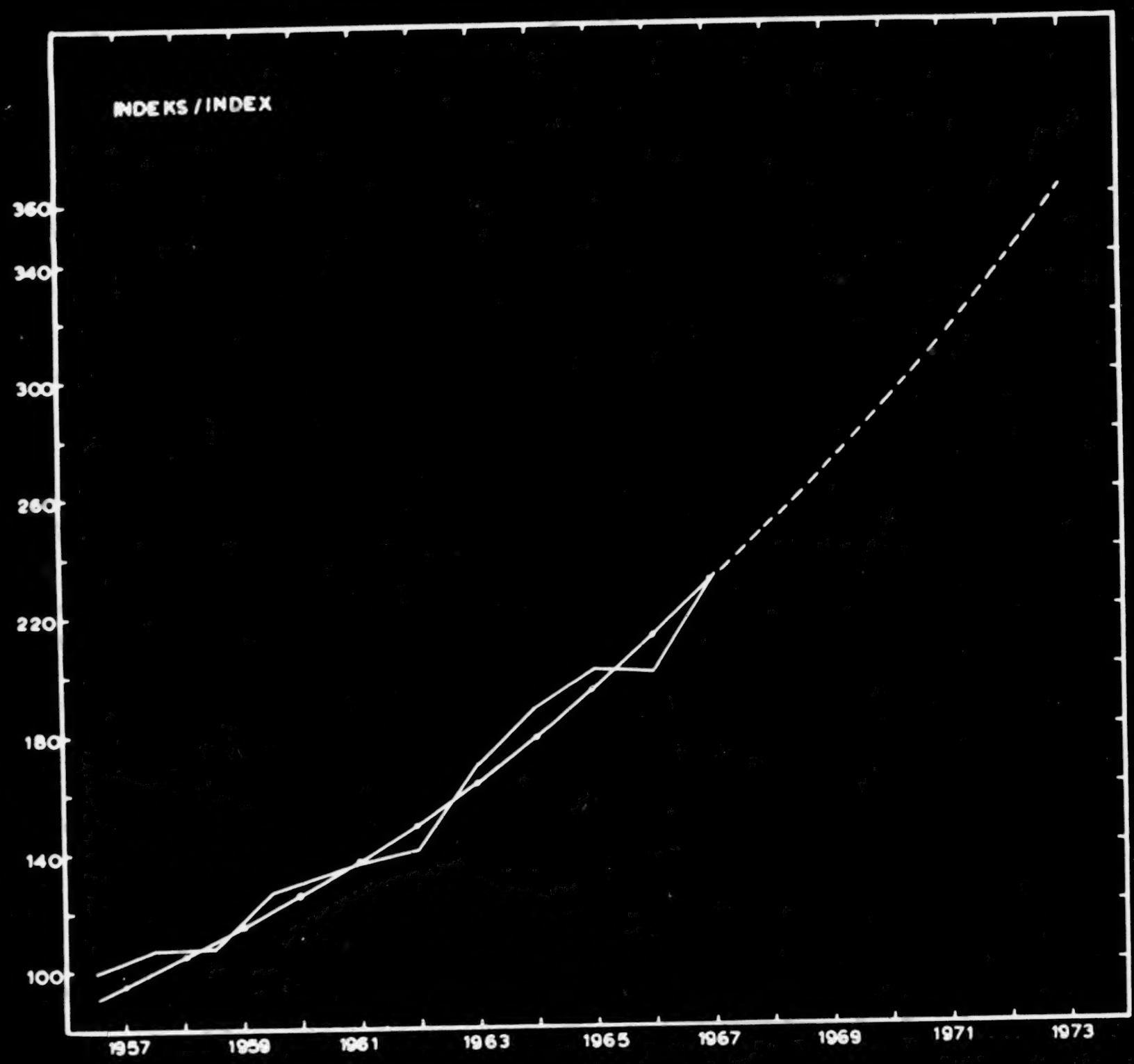

Fig. 7.20: Index of the physical volume of production of basic steel products
1956/57 = 100

327. For increases in the G.D.P. of 5, 5½ and 6 per cent, it is anticipated that the production of basic steel products over the period 1967 to 1973 will increase by 6.9 per cent, 7.8 per cent and 8.7 per cent per annum respectively. Of these growth rates, the highest one compares favourably with the annual increase of 9.0 per cent in the calculated long-term growth rate between 1957 and 1967, while the middle rate is slightly lower than the average growth experienced in the actual production over the four-year period 1963 to 1967.

328. The imports of basic steel products to meet the high domestic demand increased rapidly from 1963 to 1965, and reached the exceptionally high figure of R100 million in 1965. In the following year, however, local production was sufficient to meet the major part of the domestic demand, and imports consequently declined to R37 million. In 1967, the base year of this E.D.P., the domestic production of sheet iron in particular was not sufficient for the domestic demand as a result of the government's scheme for the construction of oil storage tanks, so that imports again increased to R58 million. For 1973 the imports of basic steel products are set at R29 million, R30 million and R31 million for the respective growth rates in the G.D.P.

Table 7.20.1: Estimated development of the basic steel products sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	345	515	541	568	6.9	7.8	8.7
Imports	58	29	30	31			
Total supply = total demand	403	544	571	599	5.1	6.0	6.8
Domestic demand (excluding inventories)	320	444	470	494	5.6	6.6	7.5
Change in inventories	17	9	11	12			
Exports	66	91	90	93			
Gross capital formation (total for the period)		703	750	806			
	Thousands						
Employment:							
Total	50	61	64	66	3.5	4.3	4.9
White	22	29	30	31	4.9	5.7	6.4
Non-White	28	32	34	35	2.4	3.1	3.7
Growth rate in the contribution per worker to the G.D.P.					3.3	3.4	3.6

329. The domestic demand (excluding inventories) expands at a slower rate than the production and its growth is set at 5.6 per cent, 6.6 per cent and 7.5 per cent respectively for the alternative growth rates in the G.D.P.

330. In 1967 19 per cent of the total production was exported. It is anticipated that the increase in the exports of basic steel products will be smaller than the increase in production so that exports will amount to approximately R90 million, or 17 per cent of the production, in 1973.

331. In so far as the composition of the domestic demand is concerned, the major consumers are shown in Table 7.20.2.

Table 7.20.2: Pattern of domestic consumption of basic steel products
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of		
		5%	5½%	6%
Agriculture, forestry and fishing	8	9	9	10
Furniture	4	5	5	5
Basic steel products	13	18	20	21
Basic non-ferrous metals	6	10	10	11
Metal products	156	216	228	237
Machinery	45	65	72	77
Electrical machinery and equipment	12	18	20	20
Transport equipment	15	18	19	20
Motor vehicles	8	14	14	15
Construction	30	39	42	44
Transport and communication	8	11	11	12
Miscellaneous services	4	5	5	5
Other sectors	5	8	7	9
Total intermediate demand	314	436	462	486
Current expenditure by general government	6	8	8	8
Change in inventories	17	9	11	12
Total final domestic demand	23	17	19	20
Total domestic expenditure	337	453	481	506

332. The major intermediate consumers of basic steel products are the following sectors: metal products, machinery, construction, electrical machinery and equipment, transport equipment, basic steel products itself, motor vehicles, and transport and communication (S.A.R. & H.).

333. With reference to capital formation in this sector, it is estimated in Table 7.20.1 that R703 million, R750 million and R806 million will have to be invested in fixed assets over the entire six year period to maintain the production capacity and to expand production to the degree required for the respective growth rates of 5, 5½ and 6 per cent in the G.D.P.

334. Employment will increase from 50,000 persons in 1967 to estimated figures of 61,000, 64,000 and 66,000 persons in 1973 for the alternative growth rates, which implies that the contribution per worker to the G.D.P. increases by 3.3 per cent, 3.4 per cent and 3.6 per cent per annum for the respective growth alternatives of 5, 5½ and 6 per cent per annum in the real Gross Domestic Product.

21. Basic non-ferrous metals*
(I.S.I.C. 342)

335. This sector embraces the manufacture and forgeing of non-ferrous metals in such basic forms as ingots, bars, sections, sheets etc. As has already been mentioned, many mines refine the ore and produce these basic forms, while these products are classified as products of the basic non-ferrous metals sector in the official foreign trade statistics. In order to equate demand and supply, however, these products of the mines were both for imports and exports retained under the sector other mining and quarrying. The production, imports and exports of the basic non-ferrous metals sector are therefore larger than the figures appearing in Table 7.21.1. In 1967, for example, the basic non-ferrous metals included under the other mines and quarrying sector amounted to R43 million for imports and R170 million for exports.

336. The historical course of the production of this sector, as reflected in the index of the physical volume of production, as well as the growth in the produc tion of the sector over the programming period corresponding with the $5\frac{1}{2}$ per cent growth rate in the G.D.P. is given in Figure 7.21 below.

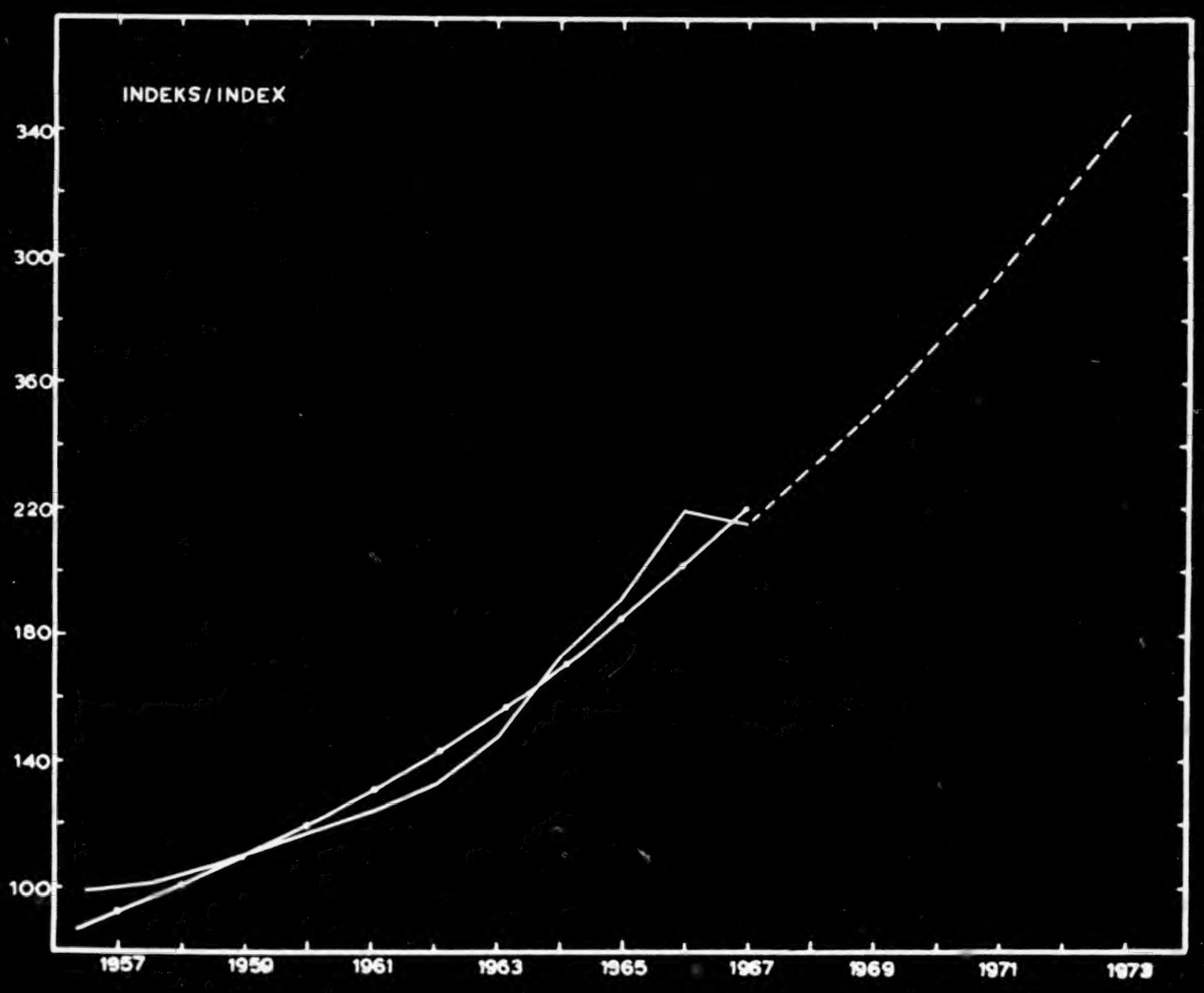

Fig. 7.21: Index of the physical volume of production of basic non-ferrous metals
1956/57 = 100

337. The long-term growth rate obtained from the production indices for the eleven-year period 1957 to 1967, amounts to 9.2 per cent per annum, while an average growth rate of 10.0 per cent was realised over the past four years. The latter average includes a decline of 1.8 per cent for 1967. It is expected, however, that this rapid increase in production will not be maintained over the following six years, and growth rates of 7.1 per cent, 8.2 per cent and 9.1 per cent are estimated for the three growth alternatives of 5, 5½ and 6 per cent in the real G.D.P. respectively. Against this a constant level of imports of approximately R11 million will be maintained over the programming period.

Table 7.21.1: Estimated development of the basic non-ferrous metals sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	98	148	157	165	7.1	8.2	9.1
Imports	11	11	11	11			
Total supply = total demand	109	159	168	176	6.5	7.5	8.3
Domestic demand (excluding inventories)	101	146	154	162	6.3	7.2	8.2
Change in inventories	3	5	6	6			
Exports	5	8	8	8			
Gross capital formation (total for the period)		59	63	67			
	Thousands						
Employment:							
Total	13	17	18	19	5.1	6.2	6.8
White	4	5	5	6	5.1	6.2	6.8
Non-White	9	12	13	13	5.1	6.2	6.8
Growth rate in the contribution per worker to the G.D.P.					1.9	2.0	2.2

338. The exports of the products of this sector, as classified here, were only R5 million in 1967 and their value is estimated R8 million for 1973.

339. The most important outlet for basic non-ferrous metals is the sales to other sectors. These products are used mainly by the basic non-ferrous metal sector itself, the metal products sector, the electrical machinery and equipment sector (chiefly copper and lead) and the construction sector. According to Table 7.21.1 the domestic demand (excluding inventories) increases from 1967 to 1973 by 6.3 per cent, 7.2 per cent and 8.2 per cent per annum for the 5, 5½ and 6 per cent growth rates in the G.D.P. respectively.

Table 7.21.2: Domestic consumption pattern of basic non-ferrous metals
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of 5%	5½%	6%
Basic non-ferrous metals	15	23	24	25
Metal products	15	22	23	24
Machinery	3	5	5	6
Electrical machinery and equipment	29	44	47	50
Construction	18	25	26	28
Transport and communication	5	6	6	7
Other sectors	12	14	16	15
Total intermediate demand	97	139	147	155
Private consumption expenditure	1	2	2	2
Current expenditure by general government	3	5	5	5
Change in inventories	3	5	6	6
Total final domestic demand	7	12	13	13
Total domestic expenditure	104	151	160	168

340. With regard to the capital required by the basic non-ferrous metals sector, the estimated gross capital formation for the alternative growth rates of 5, 5½ and 6 per cent in the economy will amount to R59 million, R63 million and R67 million respectively over the whole programming period.

341. In 1967 altogether 13,000 persons were employed in this sector, and the total employment for 1973 is estimated at 17,000, 18,000 and 19,000 for the three growth alternatives respectively. These employment figures imply increases in the contribution per worker to the G.D.P. of 1.9 per cent, 2.0 per cent and 2.2 per cent per annum for the 5, 5½ and 6 per cent growth alternatives respectively.

22. Metal products*
(I.S.I.C. 350)

342. This sector embraces the processing of basic metals to finished products such as metal pipes and pipe fittings; nails, bolts, nuts, washers and rivets; fabricated wire products; sheet and plate metal products; tinware; enamelware; builder's hardware, such as metal doors, windows and frames; plumbers' equipment, such as baths and basins; implements and tools; casing and pressings; electric light fittings; ordnance, including small arms, etc.

343. A graphic presentation of the indices of the physical volume of production of metal products for the period 1957 to 1967, as well as the estimated growth in the sector associated with an increase in the G.D.P. of 5½ per cent per annum over the programming period, is reflected

in Figure 7.22 below.

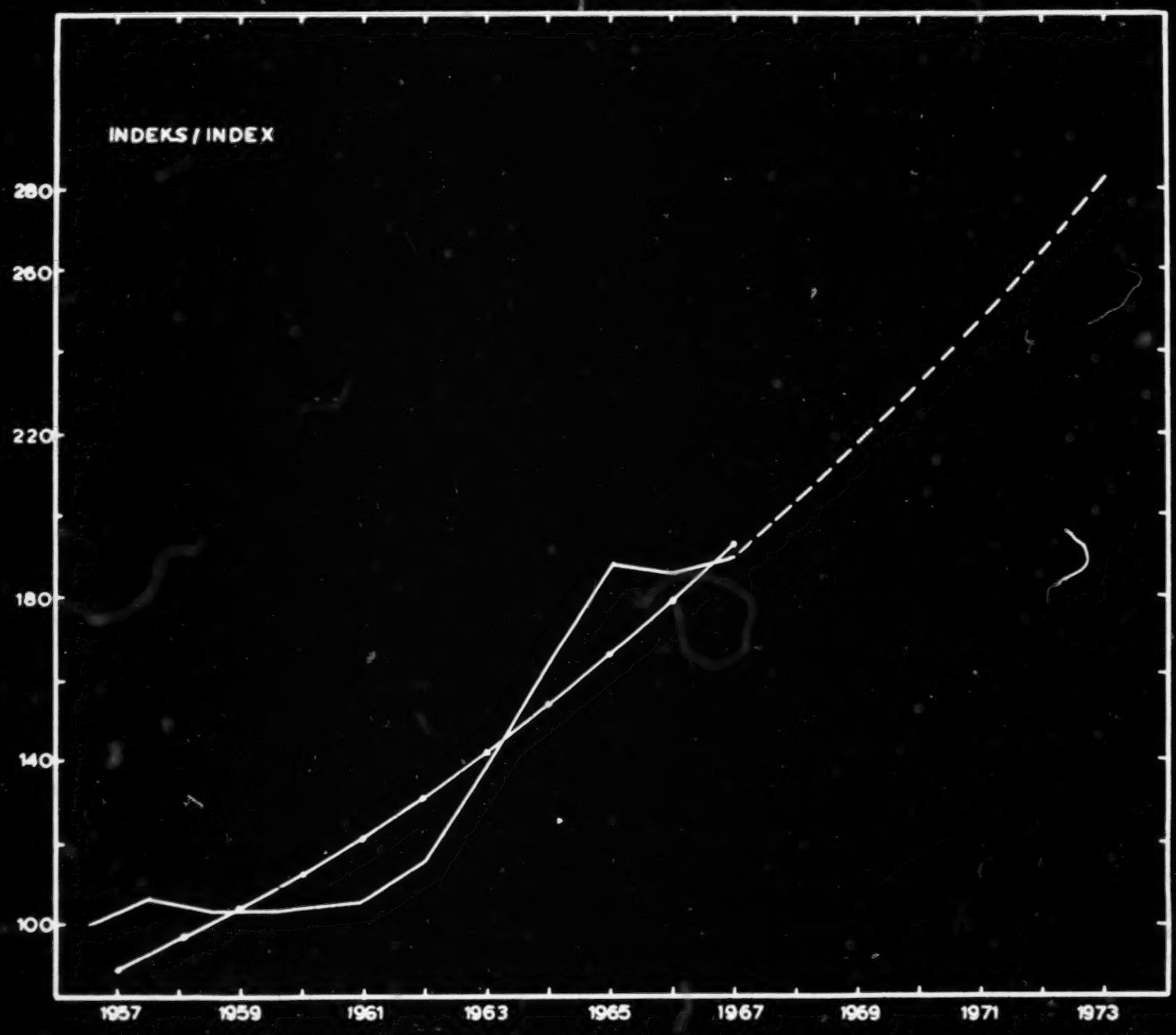

Fig. 7.22: Index of the physical volume of production of metal products
1956/57 = 100

344. For a 5, 5½ and 6 per cent growth in the G.D.P., it is estimated that the production of metal products will increase by 6.0 per cent, 6.9 per cent and 7.6 per cent per annum respectively. All three the estimated growth rates are lower than the annual increase of 8.0 per cent in the average production over the period 1957 to 1967 and it is also lower than the growth of 8.3 per cent per annum which was realised for the production of the sector over the four-year period 1963 to 1967. The last-mentioned average was achieved despite a decrease of one per cent during 1966 and the modest increase of only two per cent during 1967. In 1967 the imports of metal products amounted to only R79 million so that it constituted only a small proportion, viz. 14 per cent, of the total supply. It is expected that the share of imports in the total supply of these products will decline to approximately 10 per cent in 1973.

Table 7.22.1: Estimated development of the metal products sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	474	672	709	737	6.0	6.9	7.6
Imports	79	75	77	80			
Total supply = total demand	553	747	786	817	5.1	6.0	6.7
Domestic demand (excluding inventories)	524	708	745	774	5.1	6.0	6.7
Change in inventories	8	10	12	13			
Exports	21	29	29	30			
Gross capital formation (total for the period)		212	226	243			
	Thousands						
Employment:							
Total	122	150	157	161	3.5	4.3	4.8
White	35	41	43	44	2.6	3.4	3.9
Non-White	87	109	114	117	3.8	4.7	5.1
Growth rate in the contribution per worker to the G.D.P.					2.5	2.6	2.8

345. The exports of metal products are estimated at R29 million in 1973 for the 5, 5½ and 6 per cent growth alternatives and at R1 million more for the 6 per cent growth alternative. These estimates compare with an export figure of R21 million in 1967. The members of the Sectoral Advisory Committee pointed out that most of the exports of metal products are destined for Rhodesia and Zambia, and the level of exports are accordingly seen to depend upon the political situation in these countries. A higher level of exports may be realised if the political situation there should develop favourably.

346. As regards the demand for metal products, the domestic demand (excluding inventories), as indicated in Table 7.22.1, increases from 1967 to 1973 by 5.1 per cent, 6.0 per cent and 6.7 per cent per annum for the three alternative growth rates in the G.D.P. respectively. All the sectors distinguished in this E.D.P. make use of metal products in their production and the most important consumers are shown in the table below.

Table 7.22.2: The pattern of domestic consumption of metal products
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of 5%	5½%	6%
Agriculture, forestry and fishing	9	10	11	11
Gold mines	9	9	9	10
Processed foodstuffs	32	42	42	43
Furniture	6	8	8	8
Paper and paper products	5	7	8	8
Basic industrial chemicals	4	7	7	7
Miscellaneous chemicals	10	15	15	16
Non-metallic mineral products	9	13	13	14
Basic steel products	22	32	34	36
Metal products	46	65	68	71
Machinery	9	14	15	16
Electrical machinery and equipment	10	16	17	18
Transport equipment (excluding motor vehicles)	5	7	7	7
Miscellaneous manufacturing	18	29	30	31
Construction	111	150	160	170
Transport and communication	15	20	21	21
Miscellaneous services	21	29	30	30
Otehr sectors	41	55	60	60
Total intermediate demand	382	528	555	577
Private consumption expenditure	45	48	50	50
Current expenditure by general government	14	19	19	19
Gross fixed capital formation	83	113	121	128
Change in inventories	8	10	12	13
Total final domestic demand	150	190	202	210
Total domestic expenditure	532	718	757	787

347. The construction sector, utilising a great variety of metal products, is the major purchaser of the products of this sector. Other important purchasers are the metal products sector itself, the basic steel products sector, the processed foodstuffs sector, which uses tin containers, and the miscellaneous services sector, which makes use of metal products for the maintenance of buildings included in the "real estate" activities of this sector.

348. To realise the estimated expansion in production, the gross capital formation in the metal products sector will have to amount to R212 million, R226 million and R243 million respectively over the programming period, for the three growth alternatives of 5, 5½ and 6 per cent in the real G.D.P.

349. It may be observed from Table 7.22.1 that the rate of expansion of the total number of persons employed in the metal products sector, over the six-year period 1967 to 1973, is slower than the expansion in production, with the result that the contribution per worker to the G.D.P. will increase by 2.5 per cent, 2.6 per cent and 2.8 per cent per annum for the 5, 5½ and 6 per cent growth alternatives respectively.

23. Machinery (excluding electrical machinery)* (I.S.I.C. 360)

350. Activities included in this sector embrace the manufacture of all machinery and sources of power other than electrical machinery and equipment. However, machines powered by built-in electric motors, with the exception of household electrical appliances, are also part of the sector. The production of agricultural and industrial tractors is also included in this sector.

351. Agricultural machinery, implements and parts contribute approximately 19 per cent, industrial, mining and construction machinery 80 per cent, and other machinery 1 per cent, to the total local production.

352. The historical growth of the domestic production of machinery, as well as the projections for the next six years for a growth of 5½ per cent in the G.D.P., are reflected in Figure 7.23 below.

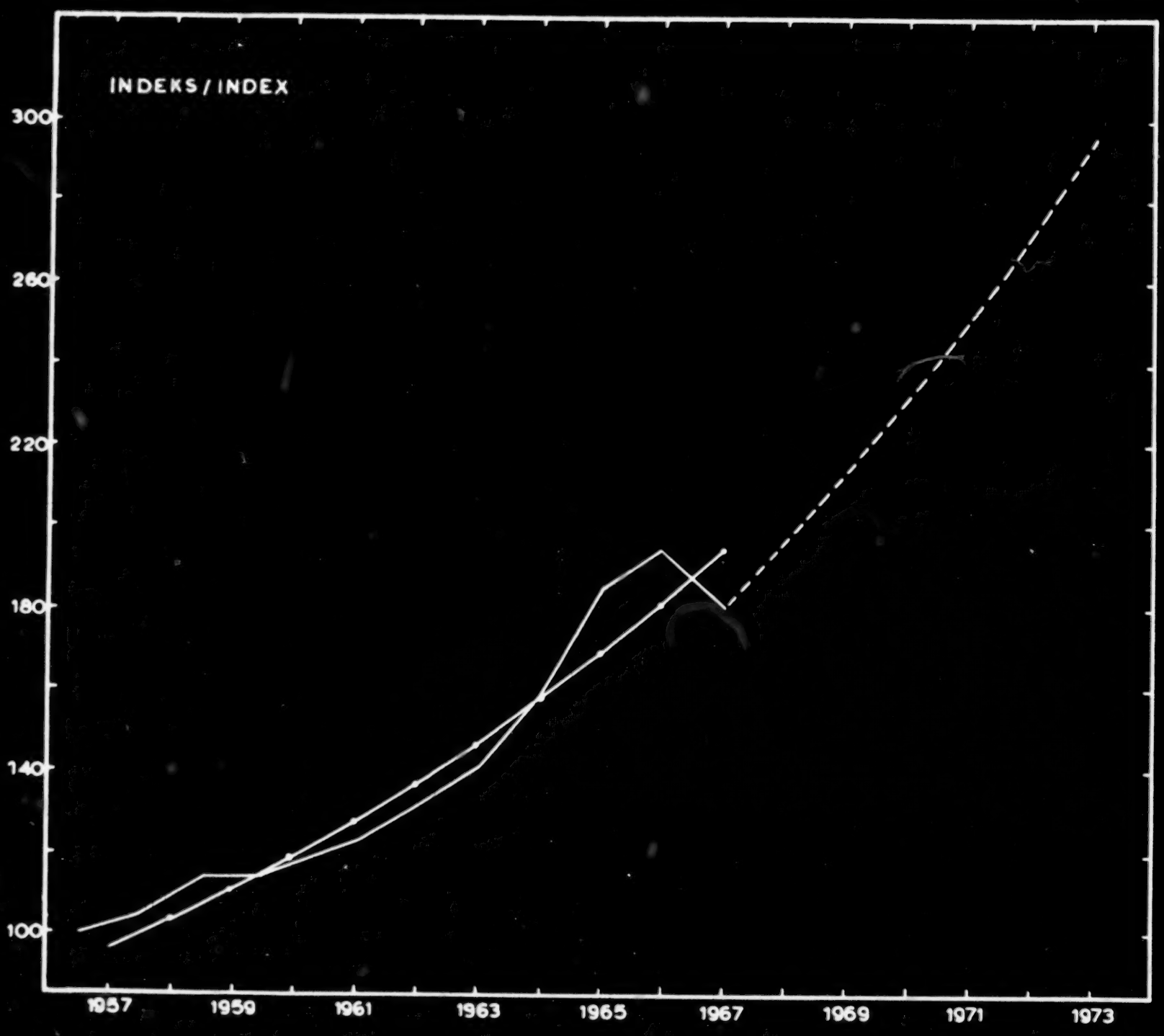

Fig. 7.23: Index of the physical volume of production of machinery
1956/57 = 100

353. A trend line was drawn through the observed production indices for the years 1957 to 1967 and the calculated long-term growth rate amounts to 7.3 per cent per annum. The local production of machinery increased from 1963, the base year of the first E.D.P., to 1966 at the high average rate of 11.4 per cent, but in 1967 the production declined by 6.7 per cent as compared with that of 1966. The average increase over the four-year period 1963 to 1967 accordingly amounted to only 6.5 per cent per annum. In Table 7.23.2 annual growth rates in production of 6.9 per cent, 8.5 per cent and 9.7 per cent are foreseen for the six-year period 1967 to 1973, for the three growth alternatives of 5, 5½ and 6 per cent in the real G.D.P. respectively.

354. The major part of the supply of machinery (including spares) is derived from imports. In 1967 imports constituted 60 per cent of the supply and, as imports expand at a lower rate than production, their share in the total supply in 1973 declines to 55 per cent, 54 per cent and 53 per cent for the 5, 5½ and 6 per cent growth alternatives respectively. This relatively low rate of expansion in the imports may be attributed partly to the high level of imports of machinery in the base year, and partly to the expectation that certain types of machinery which are still imported

at present, will be manufactured locally. The possibility of the development of a local tractor industry during the programming period has not been taken into consideration, and if a beginning should be made with such an industry in South Africa the growth rate of imports of machinery may be lower than that reflected in Table 7.23.2. On the other hand, the opinion was expressed in the Sectoral Advisory Committee that the imports of machinery may be higher if the industry is not granted sufficient tariff protection.

Table 7.23.1: Estimated development of the machinery sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	236	352	385	412	6.9	8.5	9.7
Imports	362	435	449	465	3.1	3.7	4.3
Total supply = total demand	598	787	834	877	4.7	5.7	6.6
Domestic demand (excluding inventories)	559	754	799	841	5.1	6.1	7.0
Change in inventories	16	6	8	8			
Exports	23	27	27	28			
Gross capital formation (total for the period)		278	297	319			
	Thousands						
Employment:							
Total	55	73	80	84	4.8	6.2	7.2
White	25	32	35	37	4.1	5.5	6.5
Non-White	30	41	45	47	5.3	6.8	7.8
Growth rate in the contribution per worker to the G.D.P.					2.3	2.4	2.6

355. In 1967 machinery to the value of R23 million, or 10 per cent of the local production, was exported, and it is expected to be from R4 million to R5 million more in 1973. The domestic demand (excluding inventories), shown in Table 7.23.1, increases by 5.1 per cent, 6.1 per cent and 7.0 per cent respectively for the alternative growth rates in the G.D.P.

356. It is clear from Table 7.23.2 that, as far as the domestic sales of machinery are concerned, the major part of the supply is required for capital formation. All purchases of new machines are included in gross fixed capital formation. The intermediate demand consists mainly of reserve and spare parts required by all the sectors for the maintenance of their machines.

Table 7.23.2: Pattern of domestic consumption of machinery (excluding electrical machinery)
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of		
		5%	5½%	6%
Agriculture, forestry and fishing	17	20	20	21
Gold mining	26	27	27	27
Other mining and quarrying	19	26	27	28
Non-metallic mineral products	6	8	8	9
Basic steel products	14	21	22	23
Metal products	7	10	11	11
Machinery	31	42	47	50
Construction	9	13	13	14
Trade	6	8	8	8
Motor trade and repairs	9	13	14	14
Miscellaneous services	6	8	8	8
Office supplies and services	7	9	9	10
Other sectors	27	38	40	41
Total intermediate demand	184	243	254	264
Private consumption expenditure	4	5	5	5
Current expenditure by general government	9	13	13	13
Gross fixed capital formation	362	493	527	559
Change in inventories	16	6	8	8
Total final domestic demand	391	517	553	585
Total domestic expenditure	575	760	807	849

357. With regard to capital formation in this sector, it is estimated that gross capital formation will amount to R278 million, R297 million and R319 million over the entire six-year period for the 5, 5½ and 6 per cent growth alternatives respectively.

358. Employment in this sector amounted to 55,000 persons in 1967, and for 1973 it is estimated at 73,000, 80,000 and 84,000 for the alternative growth rates in the G.D.P. respectively, which implies that the contribution per worker to the G.D.P. increases by 2.3 per cent, 2.4 per cent and 2.6 per cent per annum for the 5, 5½ and 6 per cent growth alternatives respectively.

24. Electrical machinery and equipment*
(I.S.I.C. 370)

359. This sector includes electrical equipment for the generation, storage and distribution of electrical power; electrical apparatus, including household appliances; electric light

bulbs; communication equipment, such as radios and telephone equipment; batteries; and electronic valves.

360. The course of the production of this sector is shown in Figure 7.24. For the period 1957 to 1967 the graph is based on the indices of the physical volume of production as compiled by the Bureau for Statistics, while the average growth rate, which was calculated for the 5½ per cent growth alternative, has been used to extrapolate the graph from 1968 to 1973.

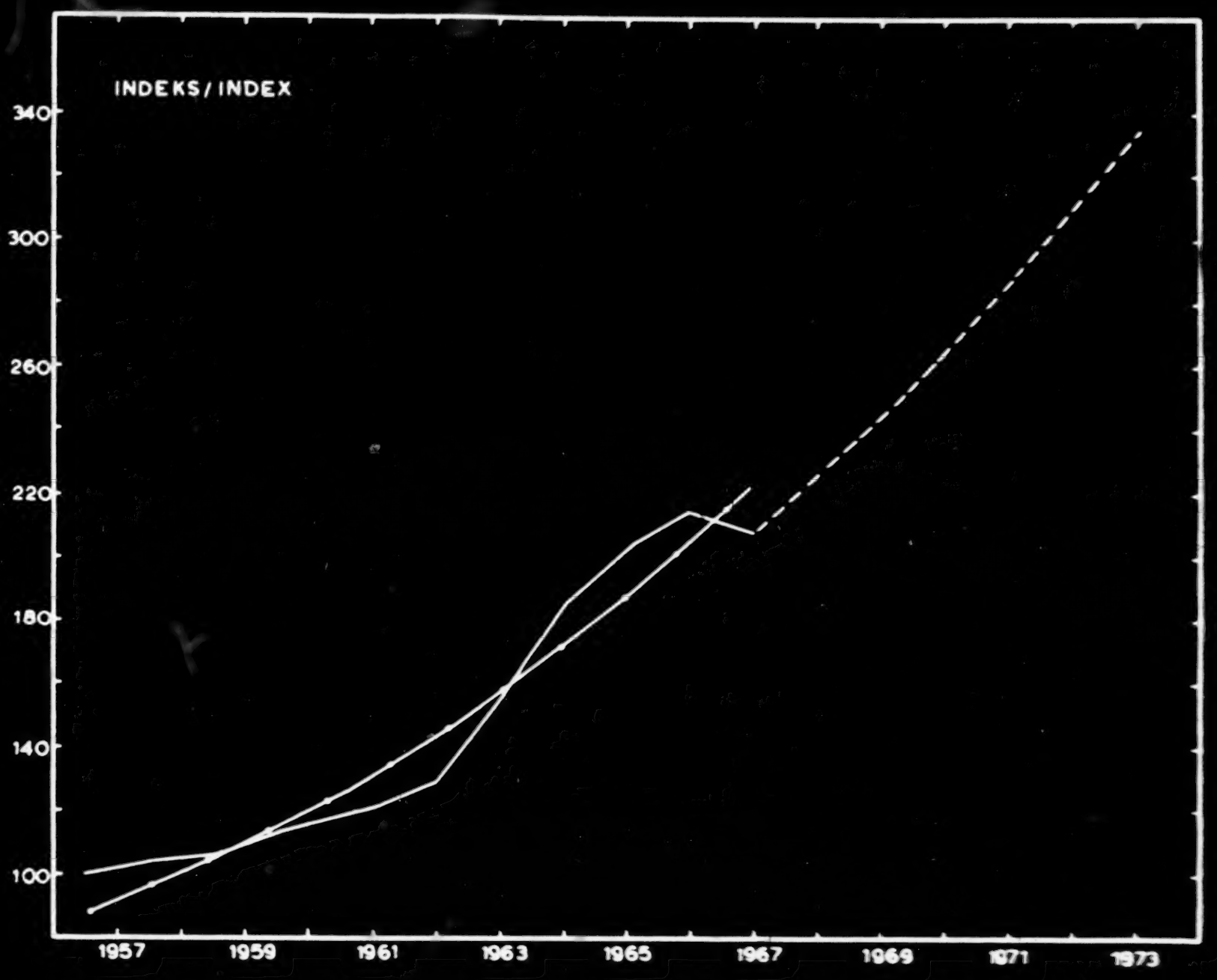

Fig. 7.24: Index of the physical volume of production of electrical machinery and equipment 1956/57 = 100

361. The long-term growth rate which is based on the production indices (1957 to 1967), equals 9.3 per cent. The observed production indices increased from 1963, the base year of the first E.D.P., to 1966 by an average rate of 11.3 per cent. The production index for 1967 is, however, 2.8 per cent lower than that of 1966, so that an average growth rate of only 7.6 per cent was maintained over the four-year period 1963 to 1967. It is estimated that the annual increase in production over the programming period will amount to 6.9 per cent, 8.2 per cent and 9.3 per cent for the 5, 5½ and 6 per cent growth alternatives respectively. The relative importance of imported electrical machinery and equipment, which equalled 38 per cent of the total supply in 1967, will decline over the programming period. The imports of the products of this sector for 1973 are estimated at a slightly higher level than that of 1967. For the 5½ per cent growth rate,

for instance, the imports are set at R170 million, as compared with R151 million in 1967. This relatively modest increase allowed for imports, is based on the relatively high import level in the base year and on the moderate import replacement provided for.

Table 7.24.1: Estimated development of electrical machinery and equipment

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	251	376	403	427	6.9	8.2	9.3
Imports	151	165	170	176	1.5	2.0	2.6
Total supply = total demand	402	541	573	603	5.1	6.1	7.0
Domestic demand (excluding inventories)	371	518	548	576	5.7	6.7	7.6
Change in inventories	23	8	10	11			
Exports	8	15	15	16			
Gross capital formation (total for the period)		148	158	169			
	Thousands						
Employment:							
Total	36	43	46	48	3.2	4.3	5.1
White	16	19	20	21	2.9	4.0	4.8
Non-White	20	24	26	27	3.3	4.5	5.3
Growth rate in the contribution per worker to the G.D.P.					3.7	3.8	4.0

362. Exports of this sector for 1973 are estimated at R15 million for the 5 and 5½ per cent growth alternatives and at R16 million for the 6 per cent growth alternative, as compared with R8 million in 1967.

363. The domestic demand (excluding inventories) for machinery is expected to increase on average over the programming period by 5.7 per cent, 6.7 per cent and 7.6 per cent per annum for the respective growth alternatives of 5, 5½ and 6 per cent in the G.D.P.

364. It will be observed from Table 7.24.2 that, despite the significance of private consumers as purchasers of the products of this sector, capital formation is responsible for the larger part of the final demand. All purchases of new electrical machinery are included in the item gross fixed capital formation. The intermediate demand, on the other hand, includes only spare parts and components consumed by all the sectors.

365. The major intermediate as well as final consumers of the products of this sector are reflected in the table below.

Table 7.24.2: The pattern of domestic consumption of electrical machinery and equipment
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of 5%	5½%	6%
Gold mining	7	7	7	7
Electrical machinery and equipment	49	73	78	83
Construction	46	63	67	71
Electricity, gas and water	6	9	9	9
Transport and communication	15	20	21	22
Miscellaneous services	12	17	17	17
Other sectors	22	29	31	32
Total intermediate demand	157	218	230	241
Private consumption expenditure	38	58	60	62
Current expenditure by general government	6	8	8	8
Gross fixed capital formation	170	234	250	265
Change in inventories	23	8	10	11
Total final domestic demand	237	308	328	346
Total domestic expenditure	394	526	558	587

366. As regards the intermediate demand, construction (electro-technical contract work), the electrical machinery and equipment sector itself, the transport and communication sector, the electricity, gas and water sector and the gold mines are the most important intermediate users of the products of this sector.

367. It is estimated that for the 5, 5½ and 6 per cent growth alternatives in the economy, gross capital formation amounting to R148 million, R158 million and R169 million respectively will be required over the programming period to realise the expansion in output.

368. The growth in employment from 1967 to 1973 amounts to 3.2 per cent, 4.3 per cent and 5.1 per cent for the three growth alternatives respectively, implying that the contribution per worker to the G.D.P. increases by 3.7 per cent, 3.8 per cent and 4.0 per cent per annum respectively for the 5, 5½ and 6 per cent growth alternatives.

25. Transport equipment (excluding motor vehicles)*
(I.S.I.C. 381, 382, 385 and 389)

369. This sector comprises the manufacture of a wide range of goods, such as aircraft, railway transport equipment, ships and bicycles. Blacksmithing is also included. In so far as local production is concerned, the manufacture of railway transport equipment is the most important activity.

370. The manufacture of railroad equipment constitutes approximately 78 per cent of the total production of this sector, followed by ship and boat building and repairs with approximately 11 per cent, while the manufacture and repair of bicycles contributed 5 per cent to the total production. The remaining 6 per cent can be divided equally between the manufacture, assembly and repair of aircraft, on the one hand, and blacksmithing, on the other.

371. Figure 7.25 below shows the index of the physical volume of production over the period 1956/57 to 1967, as well as the growth in this sector over the programming period associated with an increase of $5\frac{1}{2}$ per cent in the real G.D.P.

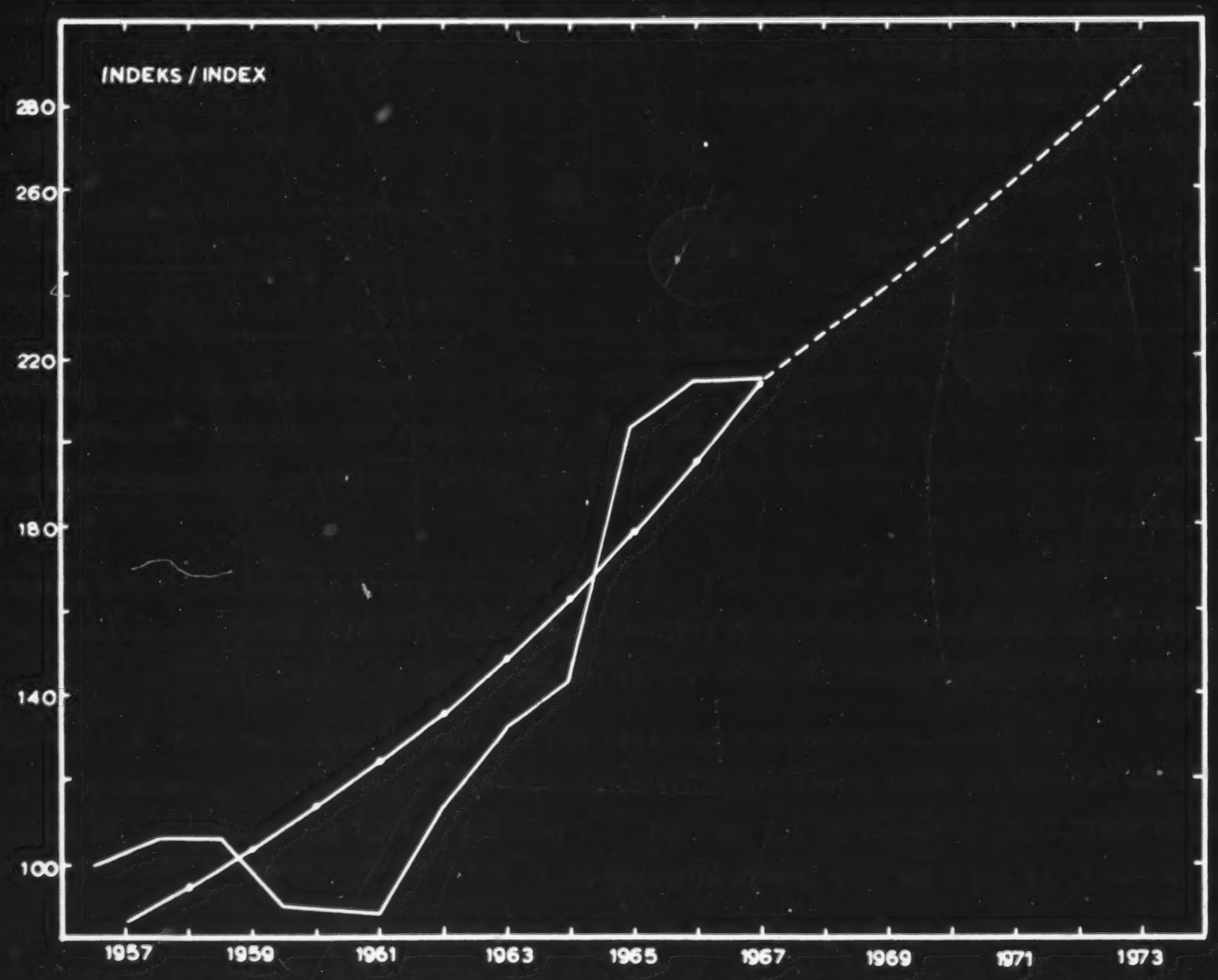

Fig. 7.25: Index of the physical volume of production of transport equipment (excluding motor vehicles) (1956/57 = 100)

372. The long-term growth rate of this sector over the 11-year period from 1956/57 to 1967 is calculated at 9.4 per cent per annum. According to Figure 7.25 there was a decline in the volume of production between the years 1956/57 and 1961. From 1961 production increased rather rapidly until 1966 and then levelled off in 1967. The average increase in the volume of production over the four-year period 1963 to 1967 was as high as 12.8 per cent per annum. As already stated above, the manufacture of railway equipment is responsible for nearly 78 per cent of this sector's total production, and 80 per cent of this locally produced railway equipment is purchased by the South African Railways. The expected growth in this sector will consequently be determined largely by the Railways' demand for railway equipment. As a result of the rapid expansion which took place in this sector between 1961 and 1966, the Railways do not expect a significant increase in their demand for this sector's products. According to Table 7.25.1 the growth rates in the production of transport equipment over the programming period will accordingly be lower than the expansion in the recent past. For a growth rate of 5 per cent in the real G.D.P., the production of this sector will increase at an average rate of 4.2 per cent per annum from 1967 to 1973, and at an average of 5.1 per cent and 6.0 per cent per annum for the other two alternative rates of growth in the G.D.P. respectively.

373. Over the period 1963 to 1967 the imports of transport equipment fluctuated widely around an average of R61 million. This sector's imports for 1967 amounted to R63 million. The most important items of transport equipment still imported are ships, boats and aircraft and it is expected that the larger items in particular will continue to be imported in future. The imports of this sector are expected to increase over the programming period by amounts varying from R1 million in the case of a 5 per cent growth in the G.D.P., to R5 million in the case of a 6 per cent growth in the real G.D.P.

Table 7.25.1: Estimated development of the transport equipment sector (excluding motor vehicles)

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	94	120	126	133	4.2	5.1	6.0
Imports	63	64	66	68			
Total supply = total demand	157	184	192	201	2.7	3.4	4.2
Domestic demand (excluding inventories)	150	172	180	189	2.3	3.1	3.9
Change in inventories	-	2	2	2			
Exports	7	10	10	10			
Gross capital formation (total for the period)		47	50	54			
	Thousands						
Employment:							
Total	13	15	16	17	2.1	2.9	3.9
White	5	6	6	8	1.5	2.3	6.9
Non-White	8	9	10	9	2.4	3.3	1.8
Growth rate in the contribution per worker to the G.D.P.					2.1	2.2	2.4

374. The domestic demand is the main outlet for the products of the transport equipment sector and it is expected that this demand will increase by 2.3 per cent, 3.1 per cent and 3.9 per cent for alternative rates of growth in the G.D.P. of 5 per cent, 5½ per cent and 6 per cent respectively over the programming period. It is clear from Table 7.25.2 that the reason why domestic demand shows such a small increase, is that its main component, gross fixed capital formation, is expected to grow at a low rate. As was mentioned above, this in turn is attributable to the small increase expected in the capital expenditure of the South African Railways over the programming period.

Table 7.25.2: The pattern of domestic consumption of transport equipment
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of 5%	5½%	6%
Agriculture, forestry and fishing	6	8	8	8
Gold mining	3	3	3	4
Transport equipment (excluding motor vehicles)	8	10	11	11
Transport and communication	22	31	31	33
Other sectors	5	5	5	4
Total intermediate demand	44	57	58	60
Private consumption expenditure	6	9	9	9
Current expenditure by general government	3	4	4	4
Gross fixed capital formation	97	102	109	116
Change in inventories	-	2	2	2
Total final domestic demand	106	117	124	131
Total domestic expenditure	150	174	182	191

375. In 1967 exports of this sector amounted to R7 million and for 1973 they are estimated at R10 million for each of the three alternative growth rates in the G.D.P.

376. Gross capital formation totalling R47 million, R50 million and R54 million will be required over the whole period in the case of the three alternative growth rates of 5 per cent, 5½ per cent and 6 per cent in the G.D.P. respectively in order to realise the estimated increase in production.

377. As regards total employment in the transport equipment sector, this will increase by 2.1 per cent, 2.9 per cent and 3.9 per cent per annum respectively for the three growth alternatives. Given the estimated expansion in production, it follows that the contribution per worker to the G.D.P. grows at an average rate of 2.1 per cent, 2.2 per cent and 2.4 per cent per annum for the 5, 5½ and 6 per cent growth alternatives respectively.

26. Motor vehicles* (I.S.I.C. 383)

378. This sector embraces the manufacture and assembly of all types of motor vehicles and motor cycles, the manufacture of caravans, trailers and the body-work of mechanically propelled vehicles, as well as the production of motor components and accessories. The manufacture and assembly of motor vehicles are responsible for approximately 80 per cent of the total production of the sector, while the manufacturers of caravans, trailers, etc. and those of motor components and accessories, each have a 10 per cent share in the total production.

379. The production activities of this sector, especially the manufacture of components and accessories, have shown a sharp increase since 1961. Figure 7.26 illustrates the course of the index of the physical volume of production over the period 1957 to 1967, as well as the projected growth in production, assuming a growth of 5½ per cent in the G.D.P. for the following six-year period.

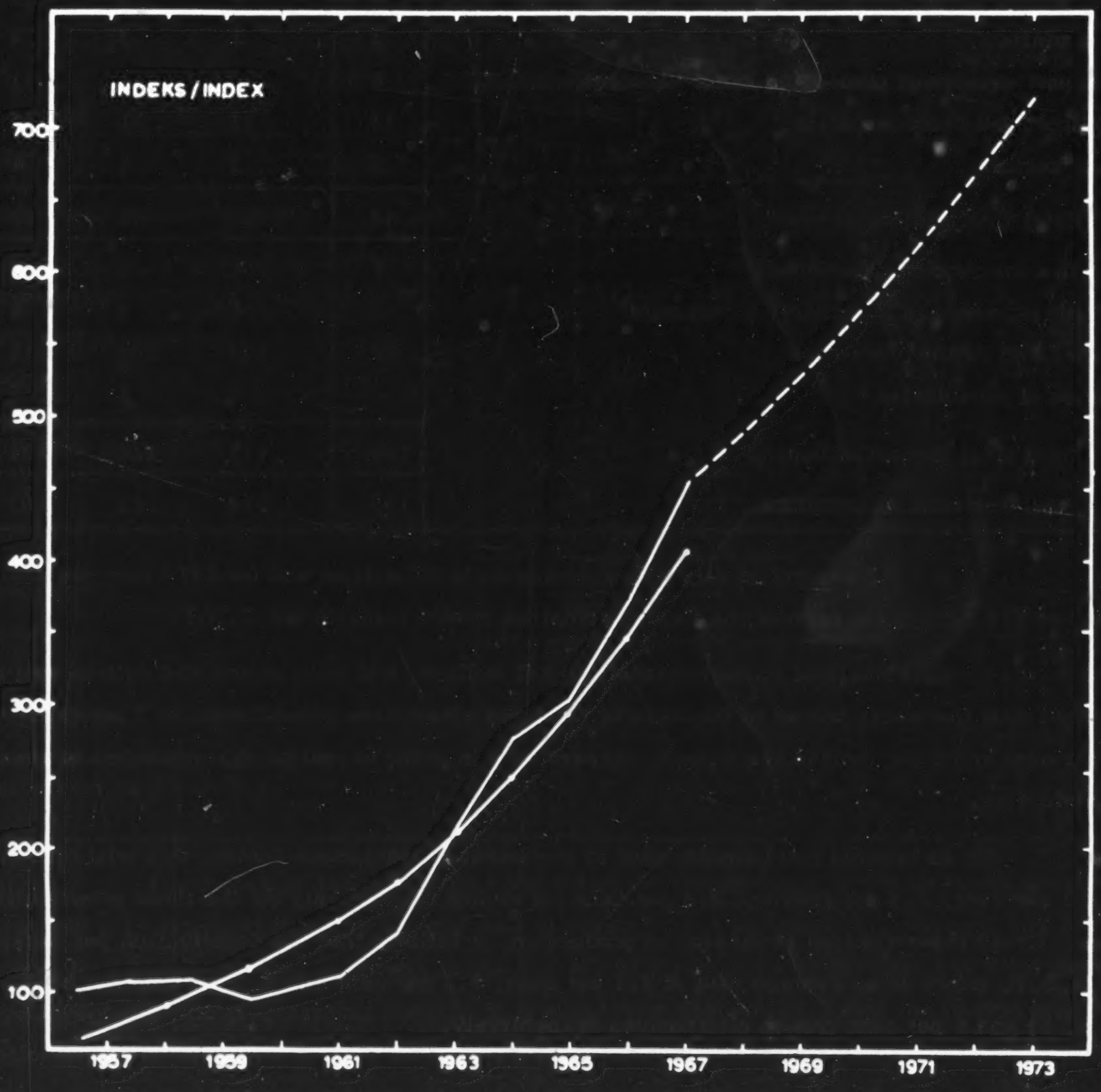

Fig. 7.26: Index of the physical volume of production of motor vehicles
1956/57 = 100

380. Given a 5, 5½ and 6 per cent increase in the G.D.P., an annual increase of 7.4 per cent, 8.3 per cent or 9.5 per cent respectively, is expected in the production of motor vehicles. This is substantially lower than the average annual increase of 18.1 per cent between 1957 and 1967, and the increase in production of 21.1 per cent which was realised over the four-year period from 1963 to 1967.

381. The main reason for the expected lower level of production over the programming period is that, partly as a result of the high capital requirements manufacturers and assemblers

of motor vehicles and manufacturers of motor components and accessories find that the local production of those items still being imported becomes progressively more difficult. About fifty per cent of the production of the component manufacturers is used for the repair and maintenance of motor vehicles. After the relaxation of import control they have experienced growing competition from foreign countries owing to an increasing supply of imported parts on the local market. Over the four-year period ended 1967, the imports of this sector fluctuated around an average of R217 million. For the base year of this E.D.P., viz 1967, the imports amounted to R214 million, and annual increases of 1.1 per cent, 1.7 per cent and 2.4 per cent are foreseen for the three growth alternatives of 5, 5½ and 6 per cent in the real G.D.P. respectively, for the six-year period 1967-1973.

Table 7.26.1: The estimated development of the motor vehicle sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	375	577	605	647	7.4	8.3	9.5
Imports	214	229	237	246	1.1	1.7	2.4
Total supply = total demand	589	806	842	893	5.4	6.1	7.2
Domestic demand (excluding inventories)	553	786	821	872	6.0	6.8	7.9
Change in inventories	25	5	6	6			
Exports	11	15	15	15			
Gross capital formation (total for the period)		242	258	277			
	Thousands						
Employment:							
Total	38	53	56	59	5.8	6.6	7.6
White	15	20	21	22	5.0	5.8	6.8
Non-White	23	33	35	37	6.3	7.1	8.1
Growth rate in the contribution per worker to the G.D.P.					2.4	2.5	2.7

382. In regards the demand for motor vehicles, the final domestic demand is the main outlet, amounting to 57 per cent of the total domestic demand in 1967 (See Table 7.26.2). The expansion in the final domestic demand (excluding inventories) for the period 1967 to 1973, is estimated at 5.4 per cent, 6.1 per cent and 7.1 per cent for the 5, 5½ and 6 per cent growth alternatives respectively. One of the important constituents of the final domestic demand, namely private consumption expenditure, will increase by 5.2 per cent, 5.5 per cent and 6.5 per cent

respectively, while the other important component, namely gross fixed capital formation, which includes all the new motor vehicles purchased by private business undertakings and the public sector (excluding vehicles for Defence), is expected to increase by 5.4 per cent, 6.5 per cent and 7.6 per cent for the three growth alternatives respectively.

383. Since the motor vehicle sector itself is the most important intermediate consumer of its products and is also a rapidly growing sector, the intermediate demand is likewise expected to grow rapidly between 1967 and 1973, i.e. at rates of 6.8 per cent, 7.7 per cent and 8.8 per cent per annum for the alternative growth rates in the G.D.P. respectively

Table 7.26.2: The pattern of domestic consumption of motor vehicles for the years 1967 and 1973
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of 5%	5½%	6%
Motor vehicles	215	324	340	363
Motor trade and repairs	16	22	23	23
Transport and communication	9	13	13	14
Other sectors	6	7	7	8
Total intermediate demand	246	366	383	408
Private consumption expenditure	143	194	197	209
Current expenditure by general government	3	5	5	5
Gross fixed investment	161	221	236	250
Change in inventories	25	5	6	6
Total final domestic demand	332	425	444	470
Total domestic expenditure	578	791	827	878

384. The exports of this sector amounted to R11 million in 1967, and they are estimated at R15 million for 1973.

385. In regard to capital formation in the motor vehicles sector, it is estimated that gross capital formation amounting to R242 million, R258 million and R277 million respectively, will be required over the whole six-year period to attain the alternative estimated growth rates in production.

386. As a result of the high rate of expansion in the production of this sector, employment will likewise expand rapidly. The average annual increase in employment between 1967 and 1973 is estimated at 5.8 per cent, 6.6 per cent and 7.6 per cent for the alternative growth rates of 5, 5½ and 6 per cent in the G.D.P. respectively. This implies an increase of 2.4 per cent, 2.5 per cent and 2.7 per cent in the contribution per worker to the G.D.P. for the three growth alternatives respectively.

27. Miscellaneous manufacturing industry
(I.S.I.C. 321, 329 and 391 to 399)

387. The main activities included in this sector are the cutting and polishing of diamonds and the manufacture of plastic products and petroleum and coal products. In addition, the production and reparation of the following products are also included: professional, scientific, measuring and controlling instruments; optical and photographic goods; watches and clocks; jewellery and related articles; electroplated products; musical instruments; toys and sporting accessories; brushes and brooms; rubber stamps; buttons and buckles; signs and advertising displays, etc.

388. The manufacture of petroleum and coal products, included in this sector, was shown in the previous E.D.P.'s as a separate sector namely No. 19, "Petroleum and coal products".

389. The following figure shows the index of the physical volume of production for the period 1956/57 to 1967, as well as the estimated growth over the programming period associated with a $5\frac{1}{2}$ per cent increase in the real G.D.P.

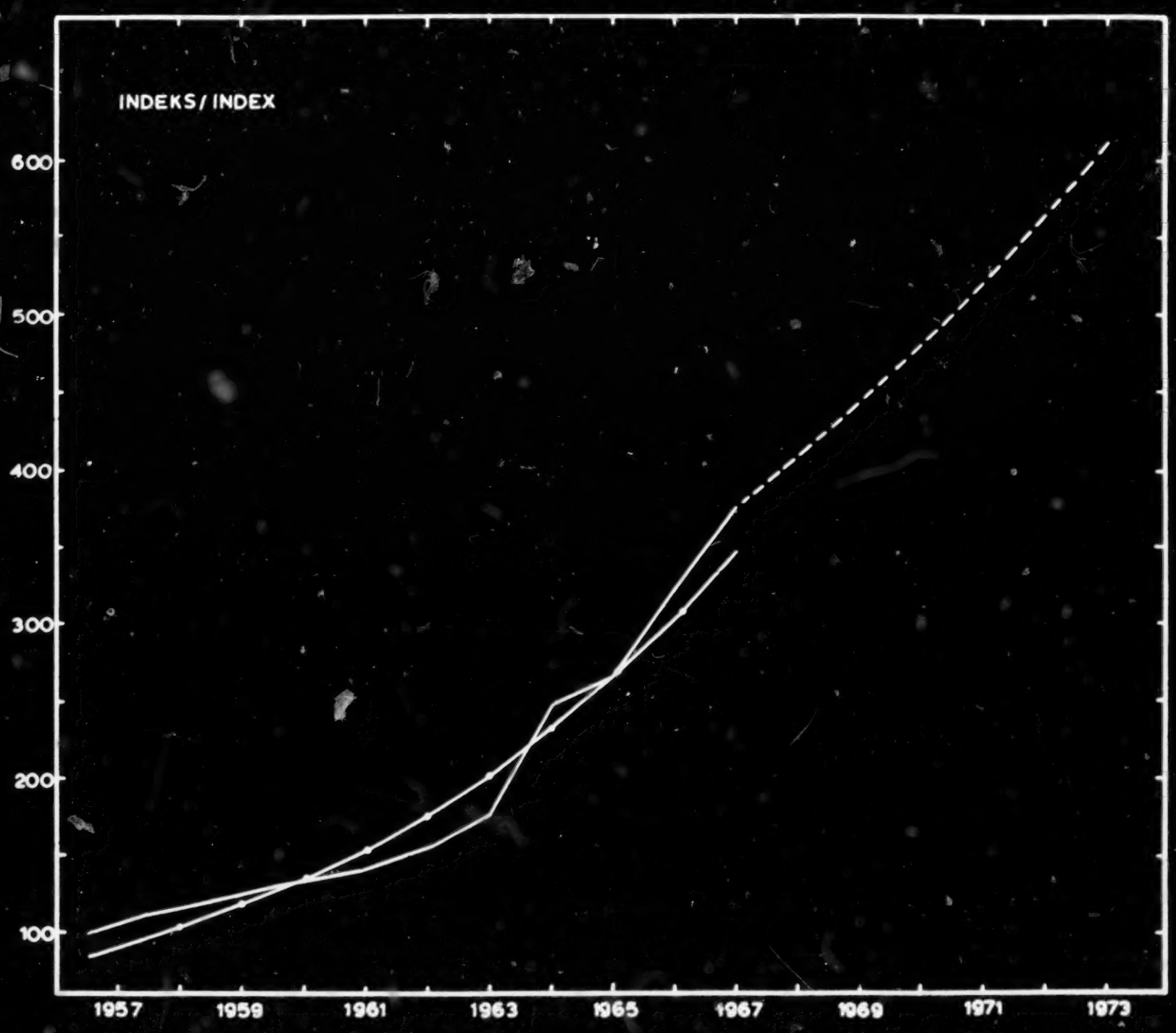

Fig. 7.27: Index of the physical volume of production of miscellaneous manufacturing
1956/57 = 100

390. The long-term growth rate in the volume of production over the period 1956/57 to 1967, was as high as 14.4 per cent per annum. Measured from 1963, the base year of the first E.D.P., the average annual increase in production was even higher, namely 20.8 per cent. It will be observed from Table 7.27.1 that production is expected to increase over the programming period by 8.1 per cent, 8.4 per cent and 9.2 per cent, for the 5, 5½ and 6 per cent growth alternatives respectively. The imports of this sector's products amounted to R151 million in 1967 and it is expected to amount to R133 million, R138 million and R143 million in 1973 for the 5, 5½ and 6 per cent growth rates in the real G.D.P. respectively.

Table 7.27.1: Estimated development in the miscellaneous manufacturing sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	360	573	584	612	8.1	8.4	9.2
Imports	151	133	138	143			
Total supply = total demand	511	706	722	755	5.5	5.9	6.7
Domestic demand (excluding inventories)	436	607	624	654	5.7	6.2	7.0
Change in inventories	5	12	12	12			
Exports	70	87	86	89	3.7	3.5	4.1
Gross capital formation (total for the period)		306	326	350			
	Thousands						
Employment:							
Total	40	49	49	52	3.4	3.6	4.5
White	12	14	14	15	2.9	3.1	3.9
Non-White	28	35	35	37	3.7	3.8	4.8
Growth rate in the contribution per worker to the G.D.P.					4.5	4.6	4.7

391. The domestic demand (excluding inventories) is expected to grow at an average annual rate of 5.7 per cent, 6.2 per cent and 7.0 per cent respectively over the period 1967 to 1973 in the case of the three alternative growth rates of 5 per cent, 5½ per cent and 6 per cent in the G.D.P. It may be seen from Table 7.27 that the intermediate demand and the final domestic demand are approximately equally important as markets for the products of this sector.

392. Given the growth alternatives of 5 per cent, 5½ per cent and 6 per cent in the G.D.P., the exports of the miscellaneous manufacturing sector will amount to R87 million, R86 million and R89 million respectively in 1973, as compared with R70 million in 1967.

Table 7.27.2: The domestic consumption pattern of the products of miscellaneous manufacturing
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of 5%	5½%	6%
Agriculture, forestry and fishing	37	45	45	47
Gold mining	7	7	7	7
Other mining and quarrying	5	6	6	7
Processed foodstuffs	6	8	8	8
Miscellaneous chemicals	6	9	9	10
Basic steel products	7	10	11	11
Electrical machinery	5	8	9	9
Miscellaneous manufacturing	22	37	37	39
Construction	23	33	34	37
Trade	10	14	14	14
Motor trade and repairs	6	8	8	8
Transport and communication	16	22	23	23
Miscellaneous services	8	11	11	11
Office supplies and services	38	54	55	57
Other sectors	24	35	37	38
Total intermediate demand	220	307	314	326
Private consumption expenditure	197	274	284	302
Current expenditure by general government	19	26	26	26
Change in inventories	5	12	12	12
Total final domestic demand	221	312	322	340
Total domestic expenditure	441	619	636	666

393. It is estimated that gross capital formation amounting to R306 million, R326 million and R350 million, will be needed over the programming period to realise the envisaged expansion in production for the 5, 5½ and 6 per cent growth alternatives respectively.

394. Total employment in the miscellaneous manufacturing sector is expected to increase by 3.4 per cent, 3.6 per cent and 4.5 per cent, if the economy as a whole expands by the alternative rates of 5 per cent, 5½ per cent and 6 per cent respectively. The above growth rates are lower than those envisaged for production, with the result that the contribution per worker to the G.D.P. increases by 4.5 per cent, 4.6 per cent and 4.7 per cent per annum for the three growth alternatives respectively.

28. Construction
(I.S.I.C. 400)

395. This sector includes building and contracting, and other construction work, such as civil engineering, shopfitting, painting and decorating, plumbing, drilling for water and electrical contracting.

396. In regard to the production of the construction sector, Table 7.28 shows that this will increase on average by 5.2 per cent, 6.4 per cent and 7.4 per cent if the G.D.P. should grow at alternative rates of 5, 5½ and 6 per cent respectively between 1967 and 1973.

Table 7.28: Estimated development of the construction sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	1,089	1,477	1,578	1,673	5.2	6.4	7.4
Total supply = total demand	1,089	1,477	1,578	1,673			
Domestic demand (excluding inventories)	1,081	1,476	1,577	1,672	5.3	6.5	7.5
Change in inventories	8	1	1	1			
Gross capital formation (total for the period)		295	315	338			
	Thousands						
Employment:							
Total	252	343	366	388	5.2	6.4	7.4
White	49	65	70	74	4.8	6.0	7.0
Non-White	203	278	296	314	5.3	6.5	7.5
Growth rate in the contribution per worker to the G.D.P.					0.00	0.03	0.03

397. In 1967, domestic fixed investment was responsible for 99 per cent of the production of this sector. The intermediate demand was relatively small and consisted of payments by other sectors to construction contractors for the maintenance of their buildings.

398. In respect of capital formation in the construction sector itself, R295 million, R315 million and R338 million respectively will be spent during the period 1967 to 1973 on the replacement of existing assets and the acquisition of new fixed assets, for the growth rates of 5, 5½ and 6 per cent in the G.D.P.

399. Employment increases at more or less the same rate as the production of this sector over the programming period, namely by 5.2 per cent, 6.4 per cent and 7.4 per cent for the 5, 5½ and 6 per cent growth alternatives respectively. The contribution per worker to the G.D.P. therefore remains virtually constant, and provision is made for only a very small increase in productivity in this sector.

29. Electricity, gas and water (I.S.I.C. 511, 512, 513 and 521)

400. This sector comprises the generation and distribution of electricity; the manufacture and distribution of gas; and the pumping, purification and distribution of water by private and public undertakings, including the water, gas and electricity departments of local authorities. The generation of electricity forms approximately 80 per cent of the activities of this sector.

401. The index of electrical current generated for the period 1958 to 1967, as well as the growth in the output of the sector over the programming period, associated with a 5½ per cent increase in the real G.D.P., is illustrated in Figure 7.29.

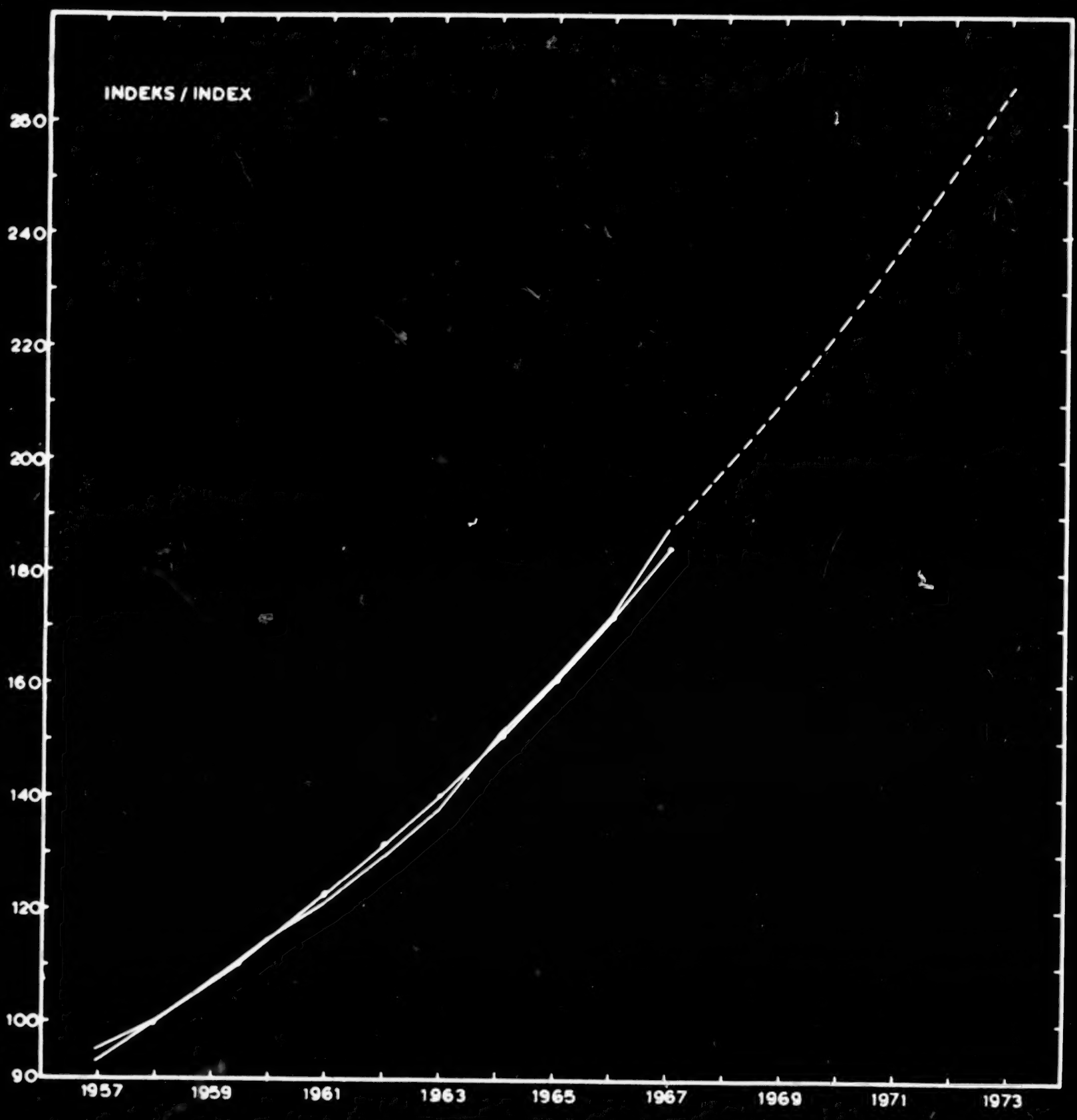

Fig. 7.29: Index of electrical current generated and the growth of the sector
1958 = 100

402. The long-term growth rate of the index of electrical current generated averaged 7.1 per cent per annum, while the volume index over the four-year period 1963 to 1967 increased by an average of 8.0 per cent per annum. The production of this sector, which is used solely for domestic consumption, is expected to increase at a faster rate than the growth in the economy as a whole, namely at an annual growth rate of 5.4 per cent, 6.0 per cent and 6.5 per cent for the alternative growth rates of 5, 5½ and 6 per cent in the G.D.P. respectively.

Table 7.29.1: Estimated development of the electricity, gas and water sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	296	405	420	432	5.4	6.0	6.5
Domestic demand (excluding inventories)	296	405	420	432	5.4	6.0	6.5
Gross capital formation (total for the period)		608	649	697			
	Thousands						
Employment:							
Total	48	54	56	56	1.8	2.4	2.7
White	14	16	16	16	1.7	2.3	2.5
Non-White	34	38	40	40	1.9	2.5	2.7
Growth rate in the contribution per worker to the G.D.P.					3.5	3.6	3.8

403. A further analysis of the domestic demand is shown in Table 7.29.2. The final domestic demand for electricity, gas and water increases at an average rate of 4.2 per cent, 5.1 per cent and 5.5 per cent per annum for the 5, 5½ and 6 per cent growth rates in the real G.D.P. respectively. The intermediate demand increases at an appreciably faster rate during the programming period, namely by 6.1 per cent, 6.6 per cent and 7.1 per cent per annum for the three above-mentioned alternative rates of growth in the economy.

Table 7.29.2: The pattern of domestic consumption of electricity, gas and water
(R million)

Sectors	1967	1973		
		Growth rate in the G.D.P. of 5%	5½%	6%
Gold mining	47	48	48	48
Other mining and quarrying	10	14	15	15
Processed foodstuffs	9	12	12	13
Basic industrial chemicals	5	8	8	9
Non-metallic mineral products	8	12	12	13
Basic steel products	11	18	18	20
Metal products	5	7	7	8
Trade	9	13	13	13
Transport and communication	24	41	42	43
Miscellaneous services	11	16	17	17
Other sectors	39	65	69	70
Total intermediate demand	178	254	261	269
Private consumption expenditure	99	125	133	136
Current expenditure by general government	19	26	26	27
Total final domestic demand	118	151	159	163
Total domestic expenditure	296	405	420	432

404. Although all the sectors distinguished use electricity, gas and water, the principal intermediate consumers are the gold mines and the transport and communications sector.

405. In order to realise the estimated increase in production, gross capital formation amounting to R608 million, R649 million and R697 million will be required by this sector over the programming period, for alternative rates of growth in the G.D.P. of 5, 5½ and 6 per cent respectively.

406. As regards employment in the electricity, gas and water sector, total employment will increase by 1.8 per cent, 2.4 per cent and 2.7 per cent per annum for the three growth alternatives respectively. On the basis of the estimated increase in production, the foregoing increase in employment implies an annual increase of 3.5 per cent, 3.6 per cent and 3.8 per cent per annum in the contribution per worker to the G.D.P. for the three alternative growth rates respectively.

30. Trade*
(I.S.I.C. 611 and 612)

407. This sector embraces the wholesale and retail trade as well as commercial agents.

408. The production of this sector is defined as the gross margin (or gross profit) of traders, and its size is therefore determined by the composition and volume of goods traded. The rate of growth of the output of this sector consequently keeps pace with the general rate of economic expansion, and according to Table 7.30 it increase by an average of 4.8 per cent, 5.4 per cent and 6.0 per cent per annum, for the 5, 5½ and 6 per cent growth alternatives in the real G.D.P. respectively.

Table 7.30: The estimated development of the trade sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	1,717	2,277	2,351	2,430	4.8	5.4	6.0
Imports	-	-	-	-	-	-	-
Total supply = total demand	1,717	2,277	2,351	2,430	4.8	5.4	6.0
Domestic demand (excluding inventories)	1,620	2,141	2,212	2,287	4.8	5.3	5.9
Change in inventories	25	16	20	21			
Exports	72	120	119	122	8.9	8.7	9.2
Gross capital formation (total for the period)		473	498	518			
	Thousands						
Employment:							
Total	432	485	499	514	2.0	2.4	3.0
White	200	220	226	233	1.6	2.0	2.6
Non-White	232	265	273	281	2.3	2.8	3.3
Growth rate in the contribution per worker to the G.D.P.					2.8	2.9	3.0

409. The domestic demand of this sector, as shown in Table 7.30, represents the margins earned by traders on goods purchased by all domestic consumers. The course of the domestic demand for the services of this sector is therefore determined by the changes in the volume and composition of the total domestic demand. The growth of the domestic demand (excluding inventories) is estimated at 4.8 per cent, 5.3 per cent and 5.9 per cent per annum for the alternative growth rates of 5, 5½ and 6 per cent in the economy respectively over the programming period.

As in the case of goods purchased by the final domestic consumers, the intermediate demand for the services of this sector is defined as the trade margin earned on goods, in this case required for the production process. The exports shown for this sector are the trade margins earned on exported products.

410. According to Table 7.30, the gross fixed capital formation over the six-year period 1967 to 1973 amounts to R473 million, R498 million and R518 million, for the alternative growth rates of 5, 5½ and 6 per cent in the real G.D.P. respectively.

411. For 1967 employment is estimated at 432,000 persons, and for 1973 at 485,000, 499,000 and 514,000 persons for the three growth alternatives respectively. On the basis of these estimates and those for production, the contribution per worker to the G.D.P. is expected to increase by 2.8 per cent, 2.9 per cent and 3.0 per cent per annum for the alternative growth rates of 5, 5½ and 6 per cent in the real G.D.P. respectively.

31. Motor trade and repairs
(I.S.I.C. 384 and part of 611 and 612)

412. The production of the motor trade and repairs sector increases by an average of 5.6 per cent, 6.5 per cent and 7.0 per cent per annum, over the programming period, if the real G.D.P. should grow at a rate of 5 per cent, 5½ per cent or 6 per cent respectively.

Table 7.31: Estimated development of the motor trade and repairs sector

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	159	221	232	238	5.6	6.5	7.0
Total supply = total demand	159	221	232	238			
Domestic demand (excluding inventories)	159	221	232	238	5.6	6.5	7.0
Gross capital formation (total for the period)		69	73	76			
	Thousands						
Employment:							
Total	114	143	150	152	3.9	4.7	4.9
White	54	70	73	74	4.3	5.1	5.3
Non-White	60	73	77	78	3.5	4.3	4.6
Growth rate in the contribution per worker to the G.D.P.					1.7	1.8	2.0

413. The domestic demand (excluding inventories), increases at average rates of 5.6 per cent, 6.5 per cent and 7.0 per cent per annum during the period 1967 to 1973, for the 5, 5½ and 6 per cent growth alternatives respectively.

414. It is estimated that this sector will require gross capital formation amounting to R69 million, R73 million and R76 million during the 6-year period, 1967 to 1973, in order to achieve the envisaged increase in production associated with growth rates of 5 per cent, 5½ per cent and 6 per cent in the real G.D.P. respectively.

415. In regard to employment in this sector, the annual increase in total employment is estimated at 3.9 per cent, 4.7 per cent and 4.9 per cent in the case of alternative growth rates of 5 per cent, 5½ per cent and 6 per cent in the G.D.P. respectively. These increases in employment imply that the contribution per worker to the G.D.P. will increase by 1.7 per cent, 1.8 per cent and 2.0 per cent per annum if the real G.D.P. should grow at the alternative rates of 5 per cent, 5½ per cent and 6 per cent respectively.

32. Transport and communications (I.S.I.C. 71, 72 and 73)

416. The transport of persons and goods by road, rail, air and sea, whether by private or public enterprise, is included in this sector, which also embraces postal, telegraphic and telephone services.

417. It is estimated that the output of the transport and communications sector will increase by 5.3 per cent, 5.8 per cent and 6.4 per cent per annum over the 6-year period 1967 to 1973, depending on which of the three growth alternatives distinguished in this E.D.P. is accepted as the target rate. This sector is therefore expected to grow at a somewhat faster rate than the economy as a whole.

418. The imports shown for 1967, namely R12 million, represent harbour dues paid by South African ships in foreign ports, as well as payment to other countries for the conveyance of mail. These payments are estimated at R15 million for 1973 if the real G.D.P. should grow at rates of 5 per cent or 5½ per cent, and at R16 million at a growth rate of 6 per cent in the real G.D.P.

Table 7.32: The estimated development of transport and communications

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	998	1,364	1,397	1,445	5.3	5.8	6.4
Imports	12	15	15	16	3.8	3.8	4.9
Total supply = total demand	1,010	1,379	1,412	1,461	5.3	5.7	6.3
Domestic demand (excluding inventories)	868	1,187	1,220	1,262	5.4	5.8	6.4
Change in inventories	13	7	9	10			
Exports	129	185	183	189	6.2	6.0	6.6
Gross capital formation (total for the period)		2,257	2,374	2,471			
	Thousands						
Employment:							
Total	338	393	401	410	2.5	2.9	3.3
White	167	192	196	200	2.3	2.6	3.0
Non-White	171	201	205	210	2.8	3.1	3.5
Growth rate in the contribution per worker to the G.D.P.					2.8	2.9	3.0

419. The domestic demand (excluding inventories) will increase annually by 5.4 per cent, 5.8 per cent and 6.4 per cent for the three alternative growth rates of 5 per cent, 5½ per cent and 6 per cent in the real G.D.P. respectively. The domestic demand is composed of the final domestic demand and the intermediate demand. The former consists of the travelling expenses of private persons and public authorities, as well as the costs associated with the transport of goods purchased by the final consumers. The intermediate demand consists mainly of transport costs payable on raw materials and components used in the production process, as well as travelling, postal, telegraphic and telephone expenses incurred by business concerns.

420. Exports shown for this sector represent the cost of transporting export goods from the point of production to the place of consignment overseas. The figures also include freightage earned by South African shipping companies, as well as harbour dues received. These exports are set at R129 million for 1967 and for 1973 are estimated at R185 million, R183 million and R189 million for the alternative growth rates of 5, 5½ and 6 per cent in the real G.D.P. respectively.

421. It is estimated that the gross capital formation in this sector during the entire programming period will amount to R2,257 million, R2,374 million and R2,471 million if the real

G.D.P. should grow at respective rates of 5 per cent, 5½ per cent and 6 per cent.

422. In regard to employment in this sector, Table 7.32 shows that total employment will increase from 338,000 persons in 1967 to 393,000 persons in 1973, assuming a growth rate of 5 per cent in the real G.D.P. If the economy should grow by the alternative rates of 5½ per cent and 6 per cent, employment is expected to expand to 401,000 and 410,000 persons, respectively, in 1973. These increases in employment imply a growth of 2.8 per cent, 2.9 per cent and 3.0 per cent respectively in the contribution per worker to the G.D.P., for the 5, 5½ and 6 per cent growth alternatives.

33. Miscellaneous services (I.S.I.C. 62, 63 and 80)

423. This sector includes a variety of activities, e.g. financial services rendered by banks and insurance companies; community services, such as private educational and medical services; business services, such as rendered by accountants, advocates and attorneys; recreation and entertainment services; personal services, e.g. by hairdressers; and household services. To make the picture complete salaries and wages paid by, as well as employment in, the public sector are also included here.

424. As regards the supply of miscellaneous services, Table 7.33 shows that the production of these services is expected to increase by 5.4 per cent, 5.9 per cent and 6.2 per cent per annum for the alternative growth rates of 5 per cent, 5½ per cent and 6 per cent per annum in the real G.D.P. respectively. The imports of miscellaneous services are identical with those estimated for the balance of payments in Chapter III (non-factor services), except that freighhtage and insurance charges on imported goods are excluded here.

Table 7.33: The estimated development of miscellaneous services

	1967	1973			Annual growth rate if the G.D.P. grows at		
		Growth rate in the G.D.P. of					
		5%	5½%	6%	5%	5½%	6%
	R million				Percentage		
Production	1,607	2,201	2,262	2,303	5.4	5.9	6.2
Imports	205	235	243	252	2.3	2.9	3.5
Total supply = total demand	1,812	2,436	2,505	2,555			
Domestic demand (excluding inventories)	1,645	2,217	2,288	2,331	5.1	5.6	6.0
Exports	167	219	217	224	4.6	4.5	5.0
Gross capital formation (total for the period)		5,426	5,705	5,940			
	Thousands						
Employment:							
Total	375	442	452	459	2.8	3.2	3.4
White	180	209	213	217	2.5	2.9	3.2
Non-White	195	233	239	242	3.0	3.4	3.7
Growth rate in the contribution per worker to the G.D.P.					2.6	2.7	2.7

425. The domestic demand for miscellaneous services is expected to increase by 5.1 per cent, 5.6 per cent and 6.0 per cent per annum for the 5, 5½ and 6 per cent growth alternative respectively. The domestic demand therefore increases at approximately the same rate as the rate of growth for the economy as a whole.

426. As regards exports of services, the estimates are based on those of the balance of payments in Chapter III. For the present sectoral analysis, however, the balance of payments estimates of services were adjusted for ships' stores supplied, freightage and harbour dues received, income from ship repairs, etc. These items were included under the exports of the various sectors rendering the services.

427. The gross capital formation in this sector, which includes capital formation by the public authorities for general administrative purposes, is estimated at R5,426 million, R5,705 million and R5,940 million for the entire six year period ending 1973 if the economy as a whole should grow at rates of 5 per cent, 5½ per cent and 6 per cent respectively.

428. In regard to employment in this sector, in Table 7.33 the figure for total employment is shown for 1967 as 375,000 persone, while 442,000 persons, 452,000 persons and 459,000 persons are expected to be employed in 1973, given the three alternative growth rates of

5, 5½ and 6 per cent in the real G.D.P. respectively. This trend in employment implies that the contribution per worker to the G.D.P. will increase by approximately 2.7 per cent per annum for each of the growth alternatives.

CHAPTER VIII

CONCLUSIONS AND POLICY IMPLICATIONS

429. In the foregoing chapters the quantitative implications of three alternative growth rates in the real G.D.P. have been analysed from the viewpoint of the available savings, foreign exchange, labour and liquidity, in order to determine, on the basis of these calculations, the maximum growth potential within the accepted sosio-political structure of South Africa. Once the growth potential has been determined and accepted as the target for the following programming period, it does not mean that the economy will expand at this tempo. Whether the potential will be realised, will to a large extent depend upon the private business sector which eventually decides what will be produced and in what quantities.

430. The implications, for the various growth rates, of the availability of the different factors of production were discussed separately, and it is necessary to give a summary of this on which the conclusions concerning the growth potential can be based. Each of the alternative growth rates contains certain policy implications, but to avoid repetition the policy implications of only one growth alternative is discussed in detail below. It is of course not possible at this stage to formulate all the measures that will be required to realise the target rate because these measures will have to be adapted from time to time in accordance with the current economic situation.

1. Summary

(a) The 5 per cent growth rate

431. From the calculations in Chapter II it appeared that, at the 5 per cent growth rate, the level of domestic expenditure on which the autonomous spenders of the income generated at this growth rate will decide, will be considerably less than the disposable income. In other words,the available savings will be more than the capital formation required for the maintenance of this growth rate. This implies, therefore, that the economy has the financial potential to expand at a faster rate than 5 per cent per annum.

432. According to the projected course of the domestic expenditure items and the national income, the balance of payments in current account,will, at this growth rate, show large surpluses during the programming period. The increase in the exports of goods that will be required to meet the growing import needs, is estimated in Chapter III at 29.5 per cent during the six-year period 1967-1973, which on the basis of past performance should be easily attainable. From the balance of payments points of view therefore it would appear that the average growth rate of 5 per cent per annum is well within the potential of the South African economy.

433. Owing to the surpluses anticipated on the current account of the balance of payments at this rate of growth, the gold and foreign exchange reserves will increase considerably during the programming period if no net outflow of capital occurs. If it is further borne in mind

that there was excess liquidity in the economy in the base year, then it seems fairly certain that the monetary factor will tend to be expansionary during the programming period.

434. The demand for labour will increase at a slower rate than the supply at an average growth rate of 5 per cent. In the case of the Whites, however, the demand will expand at approximately the same rate as the White labour force if the net immigration level is maintained at 20,000 persons per annum. If South Africa succeeds in obtaining 30,000 immigrants per annum, as was the case during the past four years, the supply of White labour will increase at a faster rate than the demand. As far as the non-Whites are concerned, the demand for labour rises slower than the supply. If the immigration level is maintained at 30,000 persons net per annum, the conclusion can therefore be drawn that South Africa, from the viewpoint of the supply of labour, has the potential to develop at a higher tempo than a growth rate of 5 per cent in the real G.D.P. between 1967 and 1973.

(b) <u>The 5½ per cent growth rate</u>

435. For a growth rate of 5½ per cent in the real G.D.P. it is estimated that domestic savings will be sufficient to finance the required level of capital formation. At this growth rate the expenditure and income will be in approximate equilibrium, so that the conclusion can be drawn that South Africa can realise this growth rate without domestic savings being supplemented by foreign capital. The skills which accompany the inflow of foreign capital, however, remain of great importance for the development of South Africa. To the extent that foreign capital flows into South Africa, capital outflow can be allowed, so that on balance no net movement of capital from or to abroad occurs.

436. The current account of the balance of payments will show small surpluses for this growth rate, and no basic problems should be experienced if the economic development were to fluctuate around the trend calculated for this growth rate. An increase of 41 per cent in merchandise exports is necessary for this growth rate in order to satisfy the import needs. Although this is a large increase in exports, it should be within the country's capacity.

437. The expansion in the domestic liquidity resulting from the changes in the gold and foreign exchange reserves envisaged during the programming period for this growth rate, will be less than the increase in the required money supply. If it is borne in mind, however, that excess liquid funds were available in the economy during the base year, then it can be concluded that initially the monetary situation will not impede expansion. The policy implications that arise from the monetary situation will be discussed in the next section.

438. In Chapter IV it was estimated that the demand for labour would increase faster than the supply if the real G.D.P. expanded at 5½ per cent per annum. If the net immigration level is set at 20,000 persons per annum, the demand for White labour will exceed the supply by 28,000 persons in 1973. On the basis of these assumptions the shortage of Whites which already existed in the base year, will become even more serious in the course of the programming period. If it is assumed, however, that South Africa will gain a net 30,000 immigrants per annum, this will change the situation on the labour market considerably. On the basis of this assumption the absolute shortage of White labour is estimated at only 3,000 persons by 1973. Provided

special attention is accorded to the training of manpower in the Republic, and the net level of immigration of 30,000 persons per annum can be maintained, it would appear that an average growth rate of 5½ per cent can be attained during the programming period on the basis of the available White labour. If the economy expands at this growth rate the demand for non-White labour will rise somewhat faster than its supply, so that the number of unemployed non-Whites will show a decline over the programming period.

439. On the basis of the domestic savings level and assuming that South Africa will gain an average of 30,000 immigrants per annum, it would appear that the growth potential for the period 1967-1973 can be set at an average growth rate of 5½ per cent in the real G.D.P.

(c) <u>The 6 per cent growth rate</u>

440. At this growth rate the required capital formation is considerably more than the domestic savings that will become available on the basis of the existing consumption patterns. In order to attain this growth rate it would, from a financing viewpoint, be necessary to reduce consumption by raising taxes and to increase the savings of the Government sector by a corresponding amount. The extent to which consumption will have to be reduced will depend upon the inflow of capital from abroad. The projected developments on the balance of payments also indicate that a capital inflow from abroad will be required in order to attain a 6 per cent growth rate. It is estimated that the current account of the balance of payments will reflect a deficit for all the years during the programming period except for the last year, even after allowance has been made for an annual increase of 6.5 per cent in merchandise exports. In analysing the monetary implications of this growth rate, it was concluded that as soon as the surplus liquidity had been mopped up, the monetary factor would have a retarding effect on the growth process unless the monetary authorities were prepared to enhance the liquidity position of the financial institutions. As a rule the monetary authorities would under such circumstances as would accompany the 6 per cent growth rate, viz. a large and consistent deficit on the current account of the balance of payments, not be prepared to revert to compensatory money creation. Thus, unless South Africa has an inflow of capital from abroad in order to neutralise at least the deficit on the current account of the balance of payments, it would appear that the maintenance of the 6 per cent growth rate between 1967 and 1973 would not be feasible from a financial and monetary point of view.

441. The analysis of developments on the labour market also indicates that South Africa does not have the potential to maintain an average growth rate of 6 per cent over the medium-term. In maintaining this growth rate over the six-year period 1967-1973 the demand for labour would increase much faster than its supply. In the case of White labour the demand would increase by 262,000 during the programming period, while the supply would increase by 187,000 persons if the net immigration level is set at 20,000 persons per annum. On the basis of these assumptions the demand for White workers would exceed the supply by 65,000 persons in 1973. The shortage of White workers experienced in 1967 would thus be aggravated to this extent in the case of the 6 per cent growth alternative. If South Africa should have a net gain of 30,000 immigrants per annum the shortage of White workers would be alleviated, but the demand would still exceed the

supply by 40,000 persons. The skilled labour market would, even at a net immigration level of 30,000 persons per annum, remain tight at this growth rate, a situation which could be conducive to inflation.

442. In so far as the demand for non-White labour at this growth alternative is concerned, it would increase by as much as 900,000 during the programming period, which are 100,000 persons more than the estimated growth in the non-White labour force.

443. The conclusion can thus be drawn that an average growth rate of 6 per cent per annum between 1967 and 1973 cannot be attained with the available savings and skilled labour resources. The attainment of this growth rate requires a net inflow of foreign capital and an immigration level which is considerably higher than the level reached in the past.

2. Policy implications

444. It would appear therefore that, on the basis of the existing savings pattern and the level of immigration reached in recent years, the growth potential of the South African economy can be set at a growth rate of $5\frac{1}{2}$ per cent per annum in the real G.D.P. for the period 1967-1973. In the assessment of this growth potential it should be borne in mind that economic activity was in fact a high level in 1967. A growth rate of $5\frac{1}{2}$ per cent, based on 1967, actually means that this growth is taking place at a higher level than would be the case with the same rate of growth, based on 1963, which was the target growth rate of the first E.D.P.

445. It is clear that each of the growth alternatives analysed have different policy implications. If the 5 per cent growth rate is selected as the target growth rate, it may be necessary to stimulate consumption expenditure, whereas consumption will have to be curtailed if the 6 per cent growth rate is selected as the target rate. Since it has been concluded above that, subject to certain conditions, the $5\frac{1}{2}$ per cent growth rate is the best approximation of the growth potential, the policy implications for this growth rate will be discussed in more detail below.

(a) Income and consumption

446. The projected income and expenditure levels at a $5\frac{1}{2}$ per cent growth rate are those levels around which the real items will tend to fluctuate, and no special measures will be necessary to attain them if this growth rate in the G.D.P. is realised. It is accepted that income and consumption will fluctuate during the programming period, as is the case in all countries with a mixed capitalistic economic system. For the realisation of the $5\frac{1}{2}$ per cent growth rate is is necessary that the traditional monetary, fiscal and trade policy measures must be applied in such a way that the actual developments do not deviate substantially from the projected levels for this growth alternative.

(b) The balance of payments

447. At this growth rate the current account of the balance of payments will show small surpluses. If no net capital inflow occurs the balance of payments, while not constituting a bottleneck, will not allow large deviations. This implies that if domestic expenditure tends to

exceed the projected levels, deficits on the current account of the balance of payments will occur which will make it necessary to apply the traditional policy measures in good time in order to curb any over-spending.

448. Since gold production will not to the same extent as in the past contribute to balanced development in the foreign accounts during the programming period, an increase of 41 per cent in merchandise exports is required. Although this increase in exports should be attainable on the basis of recent developments, it will remain necessary for the authorities to encourage exports. The main measures implemented by the Government to promote exports are the following::

(i) The establishment of an export credit insurance scheme and a credit guarantee insurance corporation which guarantees export credits and thus secures the exporter against non-payment by overseas importers;

(ii) The provision of funds for the medium- and long-term financing of exports of capital goods, by the Industrial Development Corporation, in collaboration with other bodies, such as the South African Reserve Bank, the commercial banks and other financial institutions. Any transaction that is financed under this scheme will be guaranteed by the Government in terms of the export credit reinsurance scheme, provided that:

aa) any transaction under this arrangement is finalised only with the approval of the Ministers of Finance and Economic Affairs;

bb) the maximum liability of the Government in respect of the insurance obligation in terms of the export credit reinsurance scheme following this arrangement, will for the time being not exceed R25 million at any given moment, and that the countries qualifying for the export credit facilities under this arrangement will be specified; and

cc) the South African content of capital goods the export of which is promoted in this way, must constitute at least 60 per cent of the export value of such goods;

(iii) The granting of financial assistance to a national export organisation established by the private sector, and assistance to exporters in general. As an indication of the increased national awareness of the part played by this organisation and its future importance, it may be mentioned that its membership has increased to approximately 400 at the end of September 1968;

(iv) The encouragement of the export trade by a tax concession to exporters based on the increase in their exports during a specific year;

(v) The allowance of export rebates to industrialists who, as a result of high transport costs to the ports, find it impossible to compete in foreign markets; and

(vi) The extension of South African's overseas trade representation.

449. To maintain balance in the foreign accounts it will be necessary not only for imports to increase but also for import replacement to continue to make its contribution, as in the past. As a result of developments in the domestic economy and the favourable balance of payments position, it has been possible to relax import control substantially. The relaxation of import control may, however, particularly in the initial years of the present programming period, make industrialists hesitant to undertake the local manufacture of imported goods. In order not to exceed the projected level of imports, effective protection to a reasonable extent will have to be accorded to deserving industries by means of the traditional protection measures, viz., import duties.

(c) The labour market

450. It has been pointed out that if a growth rate of 5½ per cent per annum is pursued, the shortage of skilled manpower will increase considerably if only 20,000 immigrants are gained per annum. Even if South Africa has a net gain of 30,000 immigrants per annum, the demand for skilled labour will still outstrip the supply to some extent. The immigration programme of the Government, which has been so successful in recent years, will therefore have to be continued during the programming period.

451. Apart from the immigration programme, an average growth rate of 5½ per cent per annum in the G.D.P. also requires that the training of local manpower resources should receive the highest priority. The measures already taken by the Government in this regard were discussed in detail in the first E.D.P.[1] In addition to these measures the Government in 1968 also established a Permanent Inter-departmental Committee for the Co-ordination of Educational Services for all races, to replace the former Liaison Committee for National Education. From a report of the former committee to the Economic Advisory Council of the Prime Minister, it appears that much progress has already been made in the improvement of training facilities in the Republic. It is stated that the various departments of education regularly revise and modernise their sylabusses. Considerable progress has been made in co-ordinating the education of White scholars on a national basis despite the fact that legislation to make such co-ordination compulsory, was only adopted in 1967. Core sylabusses for most primary and secondary school subjects have already

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1) Economic Development Programme for the Republic of South Africa, 1964-1969, pp. 76-79.

been drawn up through consultation between the various education authorities under the guidance of the Joint Matriculation Board and the Department of Higher Education, and are already in use or will come into use in the near future. With the passing into law of the Educational Services Act (No. 41, 1967) this co-ordination attained legal status, and as far as the possibility of formulating country-wide educational policy is concerned, the education of White children has now been placed on a national basis. This has for some time been the position in the case of Bantu and Coloureds, and will, within the near future, also apply in the case of Indians.

452. Much progress has been made in co-ordinating the education and training of the different racial groups by means of liaison between the various education authorities. As far as Coloured and Indian education is concerned, virtually the same core syllabusses as for White pupils are already being used at all primary and secondary school levels. As far as Bantu education is concerned, the same core sylabusses as for the other races are used for the Senior Certificate and Matriculation examinations, while the Department of Bantu Education draws up its own syllabusses from Substandard A through to Junior Certificate level, due regard being had to the core syllabusses drawn up under the guidance of the Department of Higher Education.

453. Good progress has been made with the introduction of aptitude testing and occupational guidance for all races, but the training of sufficient personnel to executive these functions necessarily takes time.

454. As regards the adaptation of education and training to the changing needs of the economy, the education authorities are furnished every two years with the projections of the Economic Development Programme, indicating the expected growth rates of the various sectors of the economy. With the aid of the biennial manpower survey of the Department of Labour, these projections are converted to a ground-plan indicating the expected demand for labour over a period of six years according to race, sex, occupation and sectors of the economy. This plan then serves as a guide for the education authorities in order to establish the future demand for labour in the various occupations. Furthermore the National Bureau for Educational and Social Research is at present engaged on independent long-term estimates (up to 1980) of the demand for and supply of manpower.

455. Certain problems are still experienced in converting these estimates into a ground-plan for education. One such problem is to ascertain the minimum qualifications required for each occupation. Another is to obtain a reasonably reliable estimate of the movement of the different racial groups between the economic sectors in future years. These problems are receiving continual attention.

456. Although much is being done by the authorities to provide basic training to the labour force, it is also necessary for entrepreneurs to contribute more to the training of labour for specialised work peculiar to their respective industries. Certain industries are at present engaged in institutting a scheme designed to compensate those firms that train apprentices, and to penalise those that do not undertake the necessary training. In all probability this scheme can be advantageously extended to other occupations, such as technicians and managers, as well as to other industries, and in this way the private sector could make a larger contribution towards the improvement and supply of skilled manpower.

(d) Monetary policy

457. It has been pointed out that both in the base year and in the first year of the programming period the monetary banks (excluding the Reserve Bank) held surplus liquid assets, and that the money supply had reached a high level in relation to the G.D.P., despite the credit ceiling on the ability of the banks to create money. The importance of mopping up this surplus liquidity in the economy is realised by the authorities. It can be accepted that the Government will continue to withdraw long-term funds from the private non-banking sector and partly sterilise it in order to reduce the surplus funds in the economy. The relaxation of exchange control measures regulating the outflow of funds abroad, and intensification of the control over the inflow of funds from abroad, can also contribute towards reducing the surplus liquidity in the economy.

458. Once the surplus liquidity in the economy has been mopped up, however, the normal expansion in the money and near-money supply as a result of the surplus on the current account of the balance of payments which is anticipated for the 5½ per cent growth rate, will not be sufficient to satisfy the increasing liquidity requirements of the economy. Where a justified need for credit is experienced, without the danger of inflation or deficits on the current account of the balance of payments, it can be accepted that the monetary authorities will satisfy these needs, in which case insufficient liquidity need not be a limiting factor to the attainment of a growth rate of 5½ per cent.

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4. Mr. J.F. Roos
5. Mr. J. Spencer Smith

8. Knitting Mills

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30. Trade

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TABLE A: NATIONAL INCOME AND EXPENDITURE FOR THE PROGRAMMING PERIOD 1968-1973[1]
(ALL FIGURES RELATING TO SUMS OF MONEY ARE EXPRESSED IN R MILLIONS AND IN TERMS OF 1967 PRICES)

	1967	5 per cent growth rate						5½ per cent growth rate						6 per cent growth rate					
		1968	1969	1970	1971	1972	1973	1968	1969	1970	1971	1972	1973	1968	1969	1970	1971	1972	1973
A Income																			
1 Gross domestic product at current prices	9517	9990	10500	11020	11570	12150	12750	10040	10590	11180	11790	12440	13120	10090	10690	11340	12020	12740	13500
2 Depreciation	863	930	1010	1100	1190	1290	1390	940	1020	1110	1220	1330	1440	940	1030	1130	1240	1360	1480
3 Net factor payments	329	320	320	330	340	350	360	330	340	350	360	370	380	340	350	360	370	380	390
4 Effect of changes in terms of trade[2]	-	-	-10	-10	-20	-20	-20	-	-10	-20	-20	-20	-30	-	-10	-20	-20	-30	-30
5 Net national income	8325	8740	9160	9580	10020	10490	10980	8770	9220	9700	10190	10720	11270	8810	9300	9830	10390	10970	11600
B Expenditure																			
6 Private consumption expenditure	5789	6120	6390	6660	6950	7250	7580	6140	6440	6740	7080	7440	7800	6160	6490	6830	7190	7570	7980
7 Public consumption expenditure	1110	1160	1250	1340	1400	1480	1550	1170	1250	1340	1410	1490	1560	1180	1270	1360	1420	1500	1580
8 Net fixed capital formation	1325	1260	1310	1360	1420	1480	1540	1340	1400	1470	1540	1610	1690	1430	1490	1580	1660	1750	1840
9 Change in inventories[3]	355	150	150	160	170	170	180	150	160	180	190	200	220	180	190	200	210	220	230
10 Total expenditure	8579	8690	9100	9520	9940	10380	10850	8800	9250	9730	10220	10740	11270	8950	9440	9970	10480	11040	11630
11 Balance on current account[2] (Excluding transfer receipts)	-254	50	60	60	80	110	130	-30	-30	-30	-30	-20	-	-140	-140	-140	-90	-70	-30
12 Total expenditure of the net national income	8325	8740	9160	9580	10020	10490	10980	8770	9220	9700	10190	10720	11270	8810	9300	9830	10390	10970	11600
C Supplementary information																			
13 Net foreign transfer receipts	38	40	40	40	50	50	50	40	40	40	50	50	50	40	40	40	50	50	50
14 Total balance in the current account[2]	-216	90	100	100	130	160	180	10	10	10	20	30	50	-100	-100	-100	-40	-20	-20
15 Gross fixed capital formation	2188	2190	2320	2460	2610	2770	2930	2280	2420	2580	2760	2940	3130	2370	2520	2710	2900	3110	3320
16 Net national savings[4]	1426	1460	1520	1580	1670	1760	1850	1460	1530	1620	1700	1790	1910	1470	1540	1640	1780	1900	2040
17 Consumption expenditure and savings as percentage of net national income:																			
(i) Private consumption expenditure	69.54	70.02	69.76	69.52	69.36	69.11	69.03	70.01	69.85	69.48	69.48	69.40	69.21	69.92	69.78	69.48	69.20	69.01	68.79
(ii) Public consumption expenditure[4]	13.33	13.27	13.65	13.99	13.97	14.11	14.12	13.34	13.56	13.82	13.84	13.90	13.84	13.39	13.66	13.84	13.67	13.67	13.62
(iii) Net national savings	17.13	16.71	16.59	16.49	16.67	16.78	16.85	16.65	16.59	16.70	16.68	16.70	16.95	16.69	16.56	16.68	17.13	17.32	17.59
18 Gross fixed capital formation as percentage of G.D.P.	22.99	21.92	22.10	22.32	22.56	22.80	22.98	22.71	22.85	23.08	23.41	23.63	23.86	23.49	23.57	23.90	24.13	24.41	24.59

1) These figures relate to the Republic and South West Africa only.
2) Items 4, 11 and 14 are in current prices.
3) Including the residual item.
4) Excluding foreign transfer receipts.

TABLE B: BALANCE OF PAYMENTS IN CURRENT ACCOUNT FOR THE PERIOD 1968-1973

(R MILLIONS)

	1967	5 per cent growth rate						5½ per cent growth rate						6 per cent growth rate					
		1968	1969	1970	1971	1972	1973	1968	1969	1970	1971	1972	1973	1968	1969	1970	1971	1972	1973
Receipts at 1967 prices:																			
Merchandise exports	1312	1420	1490	1540	1640	1770	1880	1420	1490	1550	1620	1730	1850	1400	1470	1530	1650	1780	1910
Gold production	773	780	800	830	840	820	800	780	800	830	840	820	800	780	800	830	840	820	800
Total merchandise	2085	2200	2290	2370	2480	2590	2680	2200	2290	2380	2460	2550	2650	2180	2270	2360	2490	2600	2710
Receipts for non-factor services	310	310	320	330	340	350	360	320	330	340	350	360	370	330	340	350	360	370	380
Receipts for factor services	91	90	90	100	100	110	110	90	90	100	100	110	110	90	90	100	100	110	110
Net transfer receipts	38	40	40	40	50	50	50	40	40	40	50	50	50	40	40	40	50	50	50
Total receipts	2524	2640	2740	2840	2970	3100	3200	2650	2750	2860	2960	3070	3180	2640	2740	2850	3000	3130	3250
Payments at 1967 prices:																			
Merchandise imports	1976	1820	1880	1940	2000	2060	2120	1890	1950	2010	2070	2130	2190	1970	2030	2090	2150	2210	2270
Payments for non-factor services	344	320	340	360	380	400	410	330	350	370	390	410	420	340	360	380	400	420	430
Payments for factor services	420	410	410	430	440	460	470	420	430	450	460	480	490	430	440	460	470	490	500
Total payments	2740	2550	2630	2730	2820	2920	3000	2640	2730	2830	2920	3020	3100	2740	2830	2930	3020	3120	3200
Balance on the current account in constant 1967 prices	-216	90	110	110	150	180	200	10	20	30	40	50	80	-100	-90	-80	-20	10	50
Change in terms of trade	-	-	-10	-10	-20	-20	-20	-	-10	-20	-20	-20	-30	-	-10	-20	-20	-30	-30
Balance on the current account in current prices	-216	90	100	100	130	160	180	10	10	10	20	30	50	-100	-100	-100	-40	-20	20

TABLE C: THE SUPPLY OF AND DEMAND FOR LABOUR [1]

(PERSONS, THOUSANDS)

	1967	5 per cent growth rate						5½ per cent growth rate						6 per cent growth rate					
		1968	1969	1970	1971	1972	1973	1968	1969	1970	1971	1972	1973	1968	1969	1970	1971	1972	1973
SUPPLY OF LABOUR																			
1) With 20,000 immigrants p.a.																			
a) Total population	18733	19173	19624	20087	20560	21044	21541	19173	19624	20087	20560	21044	21541	19173	19624	20087	20560	21044	21541
i) White	3563	3637	3713	3791	3870	3951	4034	3637	3713	3791	3870	3951	4034	3637	3713	3791	3870	3951	4034
ii) Non-White	15170	15536	15911	16296	16690	17093	17507	15536	15911	16296	16690	17093	17507	15536	15911	16296	16690	17093	17507
b) Economically active population:																			
Total	6650	6804	6963	7126	7293	7464	7640	6804	6963	7126	7293	7464	7640	6804	6963	7126	7293	7464	7640
White	1325	1354	1384	1415	1447	1479	1512	1354	1384	1415	1447	1479	1512	1354	1384	1415	1447	1479	1512
Non-White	5325	5450	5579	5711	5846	5985	6128	5450	5579	5711	5846	5985	6128	5450	5579	5711	5846	5985	6128
2) With 30,000 immigrants p.a.																			
a) Total population	18733	19183	19644	20117	20601	21037	21605	19183	19644	20117	20601	21087	21605	19183	19644	20117	20601	21097	21605
i) White	3563	3647	3733	3821	3911	4004	4098	3647	3733	3821	3911	4004	4098	3647	3733	3821	3911	4004	4098
ii) Non White	15170	15536	15911	16296	16690	17093	17507	15536	15911	16296	16690	17093	17507	15536	15911	16296	16690	17093	17507
b) Economically active population:																			
Total	6650	6808	6971	7138	7309	7484	7665	6808	6971	7138	7309	7484	7665	6808	6971	7138	7309	7484	7665
White	1325	1358	1392	1427	1463	1499	1537	1358	1392	1427	1463	1499	1537	1358	1392	1427	1463	1499	1537
Non-White	5325	5450	5579	5711	5846	5985	6128	5450	5579	5711	5846	5985	6128	5450	5579	5711	5846	5985	6128
DEMAND FOR LABOUR																			
Total all races	6442	6586	6732	6884	7038	7199	7364	6603	6768	6939	7114	7296	7485	6619	6802	6994	7189	7395	7607
Agriculture	1912	1937	1962	1988	2013	2039	2065	1937	1962	1988	2013	2039	2065	1937	1962	1988	2013	2039	2065
Mining	605	602	598	595	591	588	585	602	599	596	593	590	587	603	602	600	598	597	595
Secondary industry	1313	1359	1407	1456	1507	1560	1615	1369	1427	1488	1551	1617	1686	1376	1443	1514	1586	1663	1745
Services industries	2612	2688	2765	2845	2927	3012	3099	2695	2780	2867	2957	3050	3147	2703	2795	2892	2992	3096	3202
Total Whites	1315	1346	1375	1407	1437	1471	1504	1351	1386	1423	1460	1499	1540	1356	1396	1439	1483	1531	1577
Agriculture	116	116	115	115	114	114	113	116	115	115	114	114	113	116	115	115	114	114	113
Mining	60	60	59	59	58	58	58	60	59	59	59	58	58	60	60	59	59	59	58
Secondary industry	320	330	340	350	360	371	382	332	345	358	371	385	400	334	349	365	381	399	417
Services industry	819	840	861	883	905	928	951	843	867	891	916	942	969	846	872	900	929	959	989
Total non-Whites	5127	5240	5357	5477	5601	5728	5860	5252	5382	5516	5654	5797	5945	5263	5406	5555	5706	5864	6030
Agriculture	1796	1821	1847	1873	1899	1925	1952	1821	1847	1873	1899	1925	1952	1821	1847	1873	1899	1925	1952
Mining	545	542	539	536	533	530	527	542	540	537	534	532	529	543	542	541	539	538	537
Secondary industry	993	1029	1067	1106	1147	1189	1233	1037	1082	1130	1180	1232	1286	1042	1094	1149	1205	1264	1328
Services industry	1793	1848	1904	1962	2022	2084	2148	1852	1913	1976	2041	2108	2178	1857	1923	1992	2063	2137	2213
DIFFERENCE BETWEEN SUPPLY AND DEMAND																			
1) With 20,000 immigrants p.a.																			
i) White	10	8	9	8	10	8	8	3	-2	-8	-13	-10	-28	-2	-12	-24	-36	-52	-65
ii) Non-White	198	210	222	234	245	257	268	198	197	195	192	188	183	187	173	156	140	121	98
2) With 30,000 immigrants p.a.																			
i) Whites	10	12	17	20	26	28	33	7	6	4	3	-	-3	2	-4	-12	-20	-32	-40
ii) Non-Whites	198	210	222	234	245	257	268	198	197	195	192	188	183	187	173	156	140	121	98

1) The figures relate to the Republic only.

TABLE D: REAL FIXED INVESTMENT IN THE PRINCIPAL INDUSTRIES
(R MILLIONS)

	1967	5 per cent growth rate						5½ per cent growth rate						6 per cent growth rate					
		1968	1969	1970	1971	1972	1973	1968	1969	1970	1971	1972	1973	1968	1969	1970	1971	1972	1973
Gross fixed capital formation:																			
Agriculture	138	135	145	155	165	175	185	140	150	160	170	180	190	145	155	165	175	185	195
Mining	170	160	155	160	165	170	170	165	160	165	170	175	175	170	165	170	175	180	180
Secondary industry	753	695	740	800	885	960	1035	725	785	860	945	1030	1115	765	825	910	1005	1115	1245
Services industry	1127	1200	1280	1345	1395	1465	1540	1250	1325	1395	1475	1555	1650	1290	1375	1465	1545	1630	1700
	2188	2190	2320	2460	2610	2770	2930	2280	2420	2580	2760	2940	3130	2370	2520	2710	2900	3110	3320
Net fixed capital formation:																			
Agriculture	53	50	50	55	60	60	60	55	55	60	65	65	65	60	60	65	70	70	70
Mining	62	50	40	45	45	50	45	55	45	50	50	55	50	60	50	55	55	60	55
Secondary industry	393	290	280	285	305	320	330	315	320	335	350	365	385	355	355	370	390	425	475
Services industry	817	870	940	975	1010	1050	1105	915	980	1025	1075	1125	1190	955	1025	1090	1145	1195	1240
	1325	1260	1310	1360	1420	1420	1540	1340	1400	1470	1540	1610	1690	1430	1490	1580	1660	1750	1840

TABLE E: CURRENT INCOME AND EXPENDITURES OF THE GENERAL GOVERNMENT, 1967-1973

(R MILLIONS)

	1967	5 per cent growth rate						5½ per cent growth rate						6 per cent growth rate					
		1968	1969	1970	1971	1972	1973	1968	1969	1970	1971	1972	1973	1968	1969	1970	1971	1972	1973
INCOME																			
Tax income [1]	1560	1590	1665	1745	1830	1920	2010	1620	1700	1790	1880	2000	2100	1640	1735	1835	1945	2055	2175
Income from properties	225	235	245	260	270	285	300	235	250	265	275	290	310	235	250	265	280	300	320
Total income	1785	1825	1910	2005	2100	2205	2310	1855	1950	2055	2155	2290	2410	1875	1985	2100	2225	2355	2495
EXPENDITURE																			
1) Goods and services	1110	1160	1250	1340	1400	1480	1550	1170	1250	1340	1410	1490	1560	1180	1270	1360	1420	1500	1580
a) General services	450	475	505	540	565	605	625	480	505	540	570	605	630	480	510	545	575	610	635
b) Community services	120	125	135	145	150	155	160	130	135	145	150	160	165	130	140	150	155	165	170
c) Social services	490	510	555	595	625	655	695	510	555	595	630	660	695	520	565	605	630	660	705
d) Economic services	50	50	55	60	60	65	70	50	55	60	60	65	70	50	55	60	60	65	70
2) Net transfers	155	160	165	170	170	175	180	165	170	170	175	180	185	165	170	175	180	185	190
3) Total current expenditures	1265	1320	1415	1510	1570	1655	1730	1335	1420	1510	1585	1670	1745	1345	1440	1535	1600	1685	1770
4) Current surplus	520	505	495	495	530	550	580	520	530	545	570	620	665	530	545	565	625	670	725

1) After subtraction of subsidies.

TABLE F: THE FINANCIAL AND MONETARY ASPECTS OF THE E.D.P.

(R MILLIONS)

	1967	5 per cent growth rate						5½ per cent growth rate						6 per cent growth rate					
		1968	1969	1970	1971	1972	1973	1968	1969	1970	1971	1972	1973	1968	1969	1970	1971	1972	1973
G.D.P. at current prices	9517	10190	10920	11690	12520	13410	14360	10240	11020	11860	12760	13730	14770	10290	11120	12030	13010	14060	15200
Desired supply of money and near money	2660	2650	2840	3040	3260	3490	3730	2660	2870	3080	3320	3570	3840	2680	2890	3130	3380	3660	3950
Changes needed in the desired supply of money	-	-10	190	200	220	230	240	-	210	210	240	250	270	20	210	240	250	280	290
Changes in the gold and foreign exchange reserves	-	90	100	100	130	160	180	10	10	10	20	30	50	-100	-100	-100	-40	-20	20
The additional money requirement	-	-100	90	100	90	70	60	-10	200	200	220	220	220	120	310	340	290	300	270
Gold and foreign exchange reserves	557	647	747	847	977	1137	1317	567	577	587	607	637	687	457	357	257	217	197	217